

# THE MICHIGAN FARMER,

A WEEKLY JOURNAL OF AFFAIRS

Relating to the Farm, the Garden, and the Household.

NEW SERIES.

DETROIT, SATURDAY, APRIL 16, 1859.

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## The Michigan Farmer,

R. F. JOHNSTONE, EDITOR.

Publication Office, 130 Jefferson Avenue,  
DETROIT MICHIGAN.

The MICHIGAN FARMER presents superior facilities to  
business men, publishers, manufacturers of Agricultural  
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## The Farm.

### Michigan State Agricultural Society.

Proceedings of the Executive Committee at  
their Annual Meeting, held on the 28th of  
December, 1858, at the Michigan Exchange,  
Detroit.

### REPORT OF THE SECRETARY.

(Continued from page 105.)

At the annual meeting of the Executive  
committee in January, a resolution was adopted  
that the Secretary should not issue the  
certificates of premiums, until he was notified  
by the Treasurer that the appropriation made  
by the State, for aid of the Society, had been  
received. This course was rendered neces-  
sary under the circumstances. At the same  
meeting, E. N. Wilcox of Detroit, was made  
chairman of the Business committee. This  
selection was most fortunate for the Society,  
as he immediately took a very warm interest  
in promoting its welfare, and after much effort  
succeeded in raising sufficient funds to enable  
the Society to ask for the appropriation com-  
ing to it, and thus warrant the State office  
in paying it over, according to the provisions  
of the law. The Treasurer accordingly re-  
ceived the sum of \$2,000 from the State in  
July, and immediately commenced paying  
out the premiums awarded in 1857. It was  
found, however, that this amount would not  
be sufficient, and accordingly at a special  
meeting of the Executive Committee, held on  
the 19th of July, the business committee was  
authorized to borrow \$300 more. From this  
it will be seen that up to the date of the an-  
nual fair of 1858, the finances of the Society  
were as follows:

Balance in hands of the Treas'r, Jan. 15, 1858, \$37 17  
Received from the State appropriation, 2,000 00  
Received from loan authorized, 300 00

\$2,337 17

Against this there were the premiums of  
1857, amounting altogether to the following  
sums:

On Division A—Cattle	\$615 00
do do—Horses	431 00
do do—Sheep	362 00
do do—Swine	47 00
do do—Poultry	29 00
do do—Farm Implements	159 00
do do—Butter, cheese & honey	74 00
do do—Domesic manufactures	148 00
do do—Painting, needlework, &c.	127 00
do do—Flowers, fruits, vegetables	259 00
do do—Grain, seeds, &c.	58 00
do do—Miscellaneous, essays, &c.	64 00
	2,374 00
Premiums paid for 1856	25 50
Expenses of Executive Committee	109 13
Expenses of Treasurer in disbursing	16 80
premiums	804 67
Loan and interest	2,829 80

From this it will be seen that at the period of  
the commencement of the State fair of 1858,  
there was a debt due of \$492.43, after the  
appropriation of 1858 had been used up.

The whole resources of the Society at that  
date were, therefore, only the proceeds of the  
Annual Exhibition and the subscriptions of  
the citizens of Detroit.

The proceeds of the exhibition, as shown by the  
Treasurer's report were \$4,423 80  
The proceeds of the Detroit subscriptions up to  
the present date, have been 1,185 00  
Less 5 per cent. for collection 56 75

1,078 25

Against this there were the following ex-  
penditures incurred:

1. The payment of the awards of premiums at the

Fair of 1858, which were as follows:

Div. A, Class 1—Cattle, Shorthorns	\$217 00
2—do do—Herefords	180 00
3—do do—Devons	56 00
4—do do—Cross bloods	75 00
5—do do—Grade & Native	75 00
6—do do—Working oxen	89 00
7—do do—Steers	77 00
8—do do—Fat Cattle	14 00
9—do do—Milk cows	14 00
	747 00

Div. A, Class 13—Horses of all work	188 00
14—Blood horses	15 00
15—Drafting Horses	71 00
16—Trotting Horses	171 00
17—Family of colts	75 00
18—Match & single horses	111 00
	681 00

Div. B, Class 1—Spanish, Saxon and Si-	\$95 00
lesian Sheep	78 00
2—French Merinos	78 00
3—Mutton sheep	78 00
4—Cross bred sheep	79 00
5—Swine	68 00
6—Poultry	10 00

Div. C, Class 1, 2, 3, 4—Farm implements	165 00
Div. D—Butter, cheese, sugar and honey	55 00
Div. E—Domestic manufactures	248 00
Div. F—Painting, needlework, &c.	109 00
Div. G—Flowers, fruits and vegetables	259 00
Div. H—Grain, flour, bread	124 00

Total amount of cash premiums \$2,690 00

2. The expenditures for the Annual Exhibition of

1858, which are as follows:

1. The rent of grounds used for Fair	\$250 00
do do of the ground adjoining	50 00
	300 00
2. The buildings as contracted for	\$1,650 00
Shingle roofs, rails around grounds,	
seats around amphitheatre, etc.	558 00
	2,208 00
3. Watchmen and police at night	228 00
Day watch and workmen during fair	221 50
	449 50
4. Miscellaneous expenses, for cartage, messen-	
gers, steam engine, use of carriages, brooms,	
furniture, &c.	325 94
5. Gate keepers	68 50
6. Superintendent of halls and departments	98 25
7. Marshalls and horses	92 00
8. Rent and expenses of Secretary's office for	
stationery and assistants	247 54
9. Printing and advertising	491 91
10. Meals for committees and entertainment of	
visitors	454 20
11. Decoration of halls and grounds	480 16
12. Hay, straw and feed	218 00
13. Treasurer's office, expenses of	145 30

General expenses of Fair and of Society to  
Jan. 1, 1859 \$5,579 80

RECAPITULATION \$5,579 80

Premium list, 2,690 00

\$2,690 00

Total receipts, as above \$5,502 05

Balance due on debt of Society \$2,767 75

Against this the Society possess:

Buildings and fixtures on ground at	\$2,500 00
Detroit, valued at	200 00
A large tent, with fixtures	300 00
The plate for the Diploma	800 00
Furniture, flags, and miscellaneous	
property, worth about	250 60
	\$3,250 60

In concluding this part of the report, it  
may be well to note that while the Detroit  
subscription nominally summed up almost  
\$1,800, there has been as yet but \$1,135 re-  
ceived. There are hopes that a portion of the  
balance may be collected, but both the Secre-  
tary and one or two collectors employed by  
the business committee have labored with  
diligence so far, and have got only plenty of  
promises, and in some cases refusals from men  
whose position and standing should place  
them beyond suspicion of repudiation in such  
a case.

In considering the financial position of the  
Society, it will be seen that the difficulties  
arise principally from the fact that the income  
at the annual exhibition is not sufficient to  
meet the outlay, with the increased and in-  
creasing list of premiums, that it has been  
deemed necessary to adopt during the several  
years which the Society has been in exist-  
ence. The fair has now been held in the  
vicinity of Detroit, steadily for a series of  
years, and whilst the city and surrounding  
country have been largely increasing their

population, yet the receipts of the Society  
have not increased in proportion. It is evi-  
dent that the system upon which membership  
and admission is permitted is wrong, or there  
would be more favorable results. All obser-  
vant members have come to the conclusion  
that the privileges granted by membership  
tickets are abused, and that tickets of this  
kind are bought by parties on speculation,  
and are used so that they defeat the intention  
of the Society, and deprive it of a large por-  
tion of its legitimate revenue.

The system now in operation of granting  
membership tickets, and allowing them to ad-  
mit all who may present themselves in con-  
nection with the persons holding them, and at  
the same time having no guard against transfer,  
is a bad one, and evidently needs amendment  
or alteration. This system prevailed in New  
York and Ohio for some years, and the results  
were the same as they have been with us,  
that the societies never paid their way with-  
out large appropriations from the State.

In New York the system adopted is to sell  
membership tickets, these member's tickets  
are accompanied with a badge and four tick-  
ets that admit only four persons, each one  
time. The membership ticket must be pur-  
chased, as a matter of course by exhibitors,  
and the badge is their admission.

The Ohio rule, which seems to be the best  
adapted to meet our wants, provides that any  
person paying one dollar may enter as many  
different articles in any of the departments  
as they may please, except in horses and cat-  
tle. In these the entrance fee is one dollar  
for the first entry, and fifty cents for each  
additional animal. But no additional fee is re-  
quired to enter any animal for a sweepstakes  
premium. Each exhibitor is furnished with  
an exhibitor's ticket, which is good only at  
the exhibitor's gate. All other tickets are  
single and are charged at the rate of 25 cents  
each.

It is estimated that, during the State fair  
recently held at Detroit, on the first and  
fourth days not less than 6,000 persons visit-  
ed the fair grounds each day, whilst on each  
of the second and third days, certainly not  
less than from 10,000 to 12,000 visitors were  
present, making an aggregate of about 35,000  
in the whole. From the whole of these it  
will be seen that the receipts were, deducting for  
entries \$1,200, only \$3,206.80, or an average  
of only nine cents each, allowing nothing for  
what was received for the admission of car-  
riages and horses.

The adoption of the Ohio system would  
simplify the whole arrangement, and it is ge-  
nerally believed it would give better satisfac-  
tion. The annual fair of the State Agricul-  
tural Society has become a State necessity,  
and all that its officers have to do to be sure  
of having it placed on a fair financial position,  
is to adopt the principle of rendering the fair  
as attractive and instructive as possible, and  
then adopting rules that will secure from each  
visitor what is its just due, placing every one  
on equal footing, and the results will be  
eminently satisfactory.

With the fair located another year at  
Detroit, where it will have the advantage of  
having convenient grounds and buildings al-  
ready prepared, and for which there will be  
little outlay by way of preparation, in com-  
parison with what is usual, and with a popu-  
lation of 80,000, one half of which will prob-  
ably be visitors, if the attraction is sufficient  
to draw them out, and with the rules prop-  
erly amended and fixed, it may be reasonably  
expected that the Society will soon attain a  
fair financial standing, especially if the State  
should act with that liberality towards it  
which it has shown on all occasions since its  
organization.

### THE ANNUAL FAIR OF 1858.

It is unnecessary to go into details con-  
cerning the fair of 1858. It is well known  
that the Society, owing to unforeseen occur-  
rences, encountered an opposition that ren-  
dered it imperative that many expenses  
should be incurred, and preparations made,  
which would in an ordinary state of events  
have been somewhat curtailed. Hence it  
may be safely affirmed that, had the business  
committee not thought it their duty to strain  
every resource to the utmost which they could  
command, to show that there was no good  
cause for the general apathy and opposition

which existed in relation to the annual exhi-  
bition, it is probable that some of the expen-  
ses incurred might have been lessened in  
amount. Experience also, in the manage-  
ment of so large a business within the short  
space of a week, is necessary, to enable the  
managers to know in what direction to practice  
a cautious economy, and to enable them  
to become familiar with all the wants which  
are to be provided for. It is believed, how-  
ever, that during the State fair of 1858, there  
were few bad mistakes made, and that a gen-  
eral impression was left on the minds of com-  
munity, that Michigan could make as respect-  
able a show, when the farmers turned out, as  
any State in the West. It may be well to  
add here, that, with the facilities now existing  
and with the experience gained, and with propi-  
tious weather, it is probable that the fair  
of 1859 can be made to excel in interest  
and extent, in every department, that of the  
past year.

### THE PREMIUM LIST AND RULES.

It may not be advisable, for the next year,  
to increase the aggregate of the premiums,  
but the list should undergo a thorough revi-  
sion and reclassification, and accompanying  
each class, there should be special rules  
which would relieve committees from all doubt  
as to how the premiums should be awarded,  
and thus make the decisions and awards final,  
and so that no appeal need be taken at any  
time.

### THE TRANSACTIONS.

The copy for the volume of Transactions  
for 1857 is in part in the hands of the printers.  
The short time which elapsed between the  
time of the appointment of the present Sec-  
retary and the annual fair, and the multifar-  
ious duties incident both before and after  
that important event, left no time to attend  
to the preparation of the volume, but it will be  
issued at a date as early as it can be put  
through the press.

### THE ANNUAL EXHIBITION.

In submitting this report, it may be well to  
call attention to the propriety of rendering  
the Annual Exhibition as highly instructive  
and interesting to the agricultural community  
as possible. No method would be more apt  
than to hold out some inducement to the  
breeders of pure bred stock in other States to  
bring specimens to be shown in this State—  
It is the only method by which our knowl-  
edge of a true standard of perfection can be  
gained, and by which, in the presence of the  
great mass of the farmers, a comparison can  
be made of what has been done in this State  
to improve, with what has been done in other  
States. It must be remembered that, whilst  
the Society should be conducted with a just re-  
gard for economy in its several depart-  
ments, its true end and aim is not to make  
money, nor to be an institution solely for  
the purpose of gaining a certain amount  
of receipts. It is rather intended not only  
to promote improvement in Agriculture and  
the industrial and mechanic arts, but also to  
enable us to measure how fast and how far  
we have progressed, in comparison with ac-  
knowledge standards.

All of which is respectfully submitted.

R. F. JOHNSTONE, Sec'y.

On motion, the report of the Secretary was  
adopted and laid upon the table.

The President appointed Messrs. Crippen,  
Welsh and Berry, the committee on finance.

Messrs. Bayley, Degarmo, Crippen, H. P.  
Sly and the Secretary, the committee to re-  
vise the premium list.

The committees retired for the purpose of  
entering upon their duties, and the executive  
committee adjourned.

December 29, 1858.

The committee met, and Mr. Bayley re-  
ported that the committee on the premium  
list had gone through the list and presented  
a report.

On motion, the report was accepted, and  
the executive committee resolved itself into a  
committee of the whole, for the consideration  
of the same.

Mr. Wilcox moved to adopt the report on  
Division A, Class 1.

Mr. Sly moved to amend by adding thereto  
a series of third class premiums. Lost.

Mr. Welsh moved to amend by striking  
out the premiums to be given for calves.  
Lost—and the report on this class adopted.

The report on Classes 3, 4 and 5 was read  
and adopted.

The report provided for premiums for  
herds of Shorthorns a silver cup of the value  
of \$30, and for herds of Devons a silver cup  
of the value of \$20, which was adopted.

The report on cross bloods, grades and na-  
tives was read and adopted.

The report being read on working oxen,  
Mr. Welsh moved to amend by striking out  
the third premiums in that class.

Mr. Crippen moved to amend still further  
by making the first and second premiums \$20  
and \$15. Both amendments were lost and  
the original report adopted.

The report on steers, fat cattle, and milch  
cows was read. The report on steers and fat  
cattle was adopted.

On motion of Mr. Welsh, the premiums on  
milch cows were increased, with the design of  
encouraging more attention to the breeding  
of good animals in this class, the first prem-  
ium being fixed at \$20, and the second at \$10.

Mr. Wilcox moved that a series of premi-  
ums be given on foreign cattle, with a view  
to encourage their introduction into this State  
by their owners. Lost.

The report on horses being read, Mr. Welsh  
moved that all third premiums, and all  
premiums on sucking colts, be stricken off  
throughout the list. The question was divid-  
ed, and the motion to amend was lost.

The report on so much as relates to horses  
of all work was adopted.

The report proposed that a special class  
for Black Hawks and Morgans be provided,  
and a schedule was reported and adopted.

The report on thoroughbreds was read; on  
motion of Mr. Welsh, the report was amend-  
ed so as to confine the list to first and second  
premiums in this class.

Mr. Wilcox moved that, for the purpose of  
encouraging the introduction of the best and  
most directly imported horses into this State,  
that a special premium be given for the best  
thoroughbred stallion, imported into the  
United States within three years from the  
time of the exhibition, and which has been  
kept for service in this State for four months  
previous to the first of October next.—  
Adopted.

On motion of Mr. Wilcox,  
Resolved, That a special committee be ap-  
pointed to take into consideration the prop-  
riety of adopting an additional class of premi-  
ums for half bred horses, principally for  
carriage service, the premiums to be awarded  
only to progeny having one parent fully  
thoroughbred, as shown by certified pedigree  
to be submitted to the viewing committee.

The chair appointed as such committee  
Messrs. Wilcox, Crippen and Welsh, who re-  
ported a list which was adopted.

The report on draught horses was read  
and adopted.

The report on trotting horses was read,  
and on motion of Mr. Crippen, the list was  
extended so as to include yearlings and colts,  
as in other classes.

Mr. Wilcox moved that a rule be adopted  
for the government of exhibitors in this class,  
by which colts in the trotting class, under  
three years old, may be shown either by lead-  
ing or driving.

The report on the stable of colts was read  
and adopted, and a rule made that all stock  
shown in this class shall be colts or fillies, not  
over three years old, the animals to be con-  
sidered three years old until they have reach-  
ed the annual date of their birth, when their  
fourth year commences.

During the consideration of this subject,  
Mr. C. W. Green was permitted to address  
the committee on the subject of awards  
made in this class at the late State fair, and  
also to submit a protest against an award  
made, by which he contended that he was  
deprived of his just rights in certain par-  
ticulars.

After consideration, Mr. Bayley moved  
that an award be made to Mr. Green, equal  
in value to that offered on the premium list,  
as an equivalent for an award made under  
instruction from this committee.

On motion, this subject was laid on the ta-  
ble for the present.

The report of the committee on matched  
horses was read and adopted.



The report on jacks and mules being read, on motion of Mr. Crippen, it was

**Resolved**, That a premium of \$20 be offered for the best Maltese jack, not less than 13 hands in height, to be accompanied with reliable certificates that he is a good stock getter.

The report of the committee on sheep was read and adopted.

The report on swine and poultry was read and adopted, with some amendments.

The report of the committee on butter, cheese, sugar and honey was adopted with an amendment confining the awards to cheese manufactured in this State.

The report of the committee on farm implements, domestic manufactures, fine arts, flowers, fruits and vegetables, was read and adopted.

The Secretary being directed to classify, arrange, and divide certain classes, so that the labor of the viewing committees might be lessened.

The whole report was then adopted.

Mr. Hart offered the following preamble and resolutions:

**Whereas**, By the construction given to the terms "three years old and under," by the viewing committee on Division A, Class 17, under the sanction of the executive committee, the stock of C. W. Green was excluded; and whereas, the common interpretation of "three years old and under" includes animals not actually four years of age; and whereas, the stock entered by F. E. Eldred, who received the award, and that of Mr. Green, were both worthy, but this committee are unable to determine their comparative merits at this time, therefore,

**Resolved**, That a sum equal to the premium awarded to Mr. Eldred be and is hereby voted to Mr. Green.

**Resolved**, That in the instructions given to the viewing committee who examined the mare and colts of Mr. Green, the executive committee were actuated by a design to rule out Mr. Green's stock, and acknowledge that it did Mr. Green a serious wrong, and hereby tender him our sincere regrets.

**Resolved**, That the Secretary be hereby directed to deliver a copy of these resolutions to Mr. Green.

On motion, these resolutions were laid on the table.

Mr. Wilcox offered the following preamble and resolution:

**Whereas**, At the last annual fair, the stock of C. W. Green, of Farmington, Oakland county, entered in class (14) "Blood Horses," consisting of "Farmingtonian," and some other animals, were excluded by the viewing committee, for want of sufficiently authenticated pedigree, and it appears by the records of the Society that the same stock has heretofore been admitted in said class, and actually received awards therein; and Mr. Green having satisfied this committee, by evidence submitted, that he formerly possessed such pedigree, but had lost the same; and

**Whereas**, Mr. Green has devoted great pains and expense to the careful breeding of said stock and complains that the action of said committee has worked him an injustice, therefore,

**Resolved**, That in the opinion of this committee the stock of Mr. Green, so excluded, should have been admitted into this class; but that nothing in this resolution shall be deemed to reflect upon the action of said viewing committee, nor to interfere with their awards of premiums.

The resolution was laid on the table.

Mr. Wilcox offered the following preamble and resolution:

**Whereas**, It is important that the action of this Society should be governed by such uniform rules that its awards may carry the sanction and authority of the Society for all future time—for the guidance of those interested in the improvement of stock in this State,

**Resolved**, That in all cases of entries of thorough red stock, hereafter, at the fairs of the Society, any animal receiving a premium, approved by the executive committee, on production and filing with the Secretary the pedigree of said stock, shall be deemed to have received the sanction of the Society as to its pedigree, and that thereafter it will not be deemed necessary to reproduce the same pedigree for such animal or its progeny, but reference to such award on the records shall be sufficient. Provided, however, that in all cases, satisfactory proof of the breeding of every animal referring to such pedigree shall be adduced.

Resolution laid on the table.

After discussion, it was, on motion,

**Resolved**, That the protest now on file, against the payment to F. E. Eldred of the award made to him at the late State fair, be annulled, and that the premium be paid.

On motion of Mr. Wilcox,

**Resolved**, That a silver medal be awarded to Augustus Day, for his shingle machine, as a mark of the appreciation in which this Society hold useful inventions in mechanics by citizens of Michigan, and that a diploma be awarded on his shingles.

Mr. Bayley offered a few remarks on the utility of draining, stating that he was practically acquainted with the value of the machine for making drain tiles invented by John Daines, of Birmingham, in this State, and submitted the following resolution, which was adopted:

**Resolved**, That in consideration of the great merits of the drain tile machine invented by John Daines, of Birmingham, its low price

and its efficiency, this committee commend it as eminently worthy the attention of farmers who have lands needing the improvement of draining, and as furnishing the simplest and most easily worked means of supplying drain tiles in abundance.

On motion of Mr. Welch,

**Resolved**, That it be a general rule that in any class where colts are shown as proof of the qualities of a stock horse, the progeny of such horse shall be allowed to compete without reference to age.

(To be continued.)

#### On Nutrition in Man and Animals.

BY HENRY GOADBY, M. D., F. L. S.  
PROFESSOR OF VEGETABLE AND ANIMAL PHYSIOLOGY, AND ENTOMOLOGY, IN THE STATE AGRICULTURAL COLLEGE OF MICHIGAN, AUTHOR OF A TEXT BOOK OF VEGETABLE AND ANIMAL PHYSIOLOGY, ETC.

(Continued from page 113.)

The herbivorous insects, of which the Locusts form the best examples, present in their internal structure abundant material for meditation and exalted admiration! The Entomologist's Locust, is a kind of grass-hopper, and has no affinity with any of the numerous, dissimilar, and heterogeneous mass of insects improperly so called in this country: the seventeen years locust is a tree-bug. Of all the kinds of food upon which animals subsist, none contains so little nutriment in a given bulk as grass, and the process to which it requires to be subjected to eliminate the nutrient principle is always a complicated one. It has been already stated that these insects possess four stomachs; the first one is simply a large collecting bag analogous to the paunch or rumen, of the cow, or the sheep; in this organ the food lies macerating in the abundance of saliva which covered it while being cropped, and bathed it as it passed through the mouth to the esophagus, on its way to the stomach. After a while it is fitted to pass into the second stomach, where a most remarkable process of mastication takes place.

This sac, called the proventriculus or gizzard, is literally filled with teeth, containing no less than 222, besides teeth which line the tubular connections with the first and third stomachs. They are arranged in six rows, each divided into three rows, the teeth in the centre being the largest. The muscles devoted to this gizzard are of enormous power, and the action of this surprising organ is such, that nothing can resist it. The food thoroughly comminuted, passes from the second, into the third stomach, which lies transversely to the former, but what takes place here has hitherto defied scrutiny. Suffice it that this organ is abundantly supplied with accessory glands, but whether they secrete saliva, pancreatic fluid, or bile, is equally unknown. From the latter, the food is delivered to the fourth, and last stomach, which is a true digestive sac, closely allied to the sole stomach of man: from this it passes to the commencement of the small intestines, into which the bile is freely poured from the liver, and the chyle separated from the chyme. All the insects thus carefully described have salivary glands—mostly three pairs of them: to this secretion the instantaneous loss of vitality in the several kinds of food mentioned, is solely due; and the tissues of vegetable fabrics are loosened, softened, and prepared for the action of the gastric juice, by the same agency.

The structure of the nutrimental function in insects has been insisted on mainly, because they bear much closer affinity to the higher animals than any other class; feeding upon similar food, their organization resembles that of the mammals, who consume kindred substances, and thus establish the unity of plan, and plainly indicate the paramount necessity of using and taking care of those organs which we possess in common with them.—INSECTS ARE NEVER DYSPPEPTIC.

Throughout the Molluscous (soft bodied) animals, the same principles prevail, and the organs represent the nutrimental apparatus of insects with various modifications adapting themselves to special wants. Many of the slugs and snails, especially those that are Marine, not only possess a plurality of stomachs, but gastric, or stomach teeth are commonly found.

In the higher warm-blooded Mammalia, the nutritive function attains its most perfect development. Generally in this class, the jaws are provided with teeth—one series devoted to the action of cutting the food, and hence called incisive teeth; the function of another series is to thoroughly comminute the food, and these are known as molar or grinding teeth: the entire process is called mastication. The ducts of the three pairs of salivary glands open into the mouth, that the food may be completely insalivated before passing into the stomach, this being the first, and by far the most important stage of the whole process.

From a number of careful investigations made on this subject, it appears extremely probable that the secretion of these glands

possess very different properties; the parotid glands appear to destroy vitality in all animal and vegetable substances—hence the bite of a rattlesnake is certain death, and the bite of a healthy dog, fox, raccoon, and many other animals, may produce hydrophobia.—The action of the secretion of the other two pairs of glands is to loosen the tissues, and thus prepare them for the gastric juice, and to reduce every form of matter to a state of semi-decomposition. The saliva, generally, possesses one other property—it mechanically dilutes and softens dry food.

The first process of nutrition, then, is mastication; the second, is deglutition—the act of swallowing the food; the third, is chymification—the reduction of the food in the stomach to a pulaceous mass, called chyme; and the fourth, and last, is chyliification—the separation of the nutrient, from the innutritious materials contained in the food, which is effected by the aid of the pancreatic juice, and bile, in the first of the small intestines.—This newly acquired nutriment, resulting from the digestion of the last meal, is called chyle; when firstly formed it is perfectly white, it is taken from the intestine by an immense number of delicate vessels, termed lacteals, from the latin lacta—milk—they convey it to a certain duct in the chest, known as the thoracic duct, from thence it is conveyed to the heart, and from this organ to the lungs, where it receives its first supply of oxygen, which changes its color from white, to a beautiful vermilion; other important elements are superadded, and it is now returned to the heart as new blood, thence to be distributed to all the tissues of the body, to nourish and sustain them, and repair waste. Each tissue abstracts from the blood only the particular element that it requires for its own purposes; thus the vessels of the skin appropriate the element of which the protecting horny cuticle can be formed; the salivary glands, the element conducive to the formation of saliva, the pancreas, of pancreatic fluid; the liver, of bile, &c.

All these distinct processes of the nutrimental function, which ought to work harmoniously together, are easily deranged; if mastication be not properly performed, and the food sufficiently insalivated, the stomach is powerless to deal with it: the consequence is that chyme is not formed, except in very small, insufficient quantity, and a man may possess a voracious appetite, consume large quantities of food, yet starve upon all he eats: the best way, probably, to understand the full significance of these processes severally, is to examine the phenomena of digestion in the herbivorous quadruped.

Sheep and cows may constantly be seen walking carefully about the meadows solely occupied in cropping the herbage, with a rapidity that is astonishing. Each morsel is swallowed as fast as collected, and, after some time spent in this manner, they may be seen to throw themselves upon the ground as if fatigued with their labors. If they be watched in this position, something will be seen to pass upwards into the mouth by a sudden jerk, at the same time the creatures (while not taking any more food) will be seen leisurely and lazily chewing something, which operation continues for a long time. The food which the animals perseveringly gather whilst walking about in search of it, descends into the first stomach, known as the paunch or rumen; this is simply a large collecting bag, and the food which it receives is as much grass, as when growing in the field; it is, however, slightly moistened with saliva. As this bag begins to fill, the grass which has lain macerating in the saliva is, by the action of the muscles of this sac, squeezed upwards, and into the second stomach, called reticulum, or honey-comb stomach, from the fact that its interior is occupied by a number of honey-comb like cells. Grass received into this sac, from the first, passes into these cells, and by the action of its muscular coat, becomes shaped into a round ball; it is one of these balls, or pellets, that by a spasmodic contraction of the muscles of the stomach, is thrown, or jerked up into the mouth, there to undergo a most careful and elaborate mastication, and insalivation. The care and pains bestowed on this operation is quite extraordinary; at length it is finished, and the morsel once more delivered to the esophagus for conveyance to the stomach. Examined at this moment, the effect of the saliva is plainly visible; the bright green color of the grass, which it retained until it entered the mouth a second time, is gone; it now represents thoroughly well boiled spinach in color and texture; in this state it is delivered to, neither the first nor second stomach, but by a grooved passage opened at the pleasure of the animal at the bottom of the esophagus, to the third stomach, or abomasum. This stomach is longer than broad, much larger than the rounded second stomach, and lined

with a series of flakes, arranged in the direction of its long axis, whereof a large flake (in height) has smaller on either side; then another series of one large, and several smaller flakes, alternating thus, throughout the interior. The food becomes densely impacted between these flakes, assuming their shape; it appears to be tightly and compactly pressed, and from the wet state of the leaves, or flakes, it would seem to be their function to absorb all superfluous moisture, for, whilst the food is remarkably dry, the flakes represent a number of wet towels. When it has been sufficiently subject to the action of this, it passes through an opening into the fourth, and last stomach: the various processes it has already been submitted to, at least render it capable of ultimate resolution in a stomach resembling in every particular the sole similar organ of man, and other animals. Here, for the first time, it comes in contact with a gastric juice, and to prevent the too great dilution of this fluid by the water found in the cells of the second stomach, or by the saliva, it was necessary to submit it to the pressure, and absorbing process of the third stomach.

(To be continued.)

#### Farming Prospects in Genesee County.

[We make the following extract from a friendly letter to the editor, by one of our subscribers. It is such statements as these, plain, straight-forward, and to the point, that serve to give a correct idea of the condition of the country and its agricultural prospects. Cannot other friends favor us and our readers with similar statements from other sections of the state.—Ed.]

"I wish to inform you of the prospects of the farming community in our region. Wheat, I believe, never looked better in this country, or promised a better crop at this season of the year. Our clover has not been injured in the least. There is not as much wheat sown as in former years, on account of the failure of the crop last year. There was considerable spring wheat sown here last fall, but it looks poorly at present. I think we will have oats and potatoes enough for home consumption and seed, but none to spare. Hay is not as plenty as was expected this spring, and I think farmers will do well to mow all their meadows this season, for the prospect is that hay will pay another winter.

Farmers here have generally come to the conclusion that it will not pay to hire help this season, but will do their work themselves, that they may curtail their expenses, and be more likely to have something to sell. This determination will make it bad for laborers who are wandering about the country looking for work, a d asking moderate wages, from eight to twelve dollars a month.

Working stock is in good demand at fair prices. Sheep are selling at from \$2.50 to \$3.00 a head by the flock, and shift hands frequently; but few are going out of the country. They are not very plenty with us yet, as the farmers have paid but little attention to that important branch of their business in this northern section. I noticed some very fine flocks through the towns of Genesee and Grand Blanc, and some of very good quality. Our sheep being generally in small flocks, and of the common or coarse grade, are usually large, and in good condition, yielding from three to four and a quarter pounds of wool per head. I have taken from six to eight and a quarter pounds from my wethers, and three to four from my ewes. I never have kept over thirty-five head at the time, till this winter, I have raised my flock to ninety, mostly ewes, and expect a yield of four pounds of wool per head, besides the lambs; and I shall look to the MICHIGAN FARMER to keep me posted on the prospects of wool about shearing time, when I hope to realize a good profit for the hay I have fed out.

Yours truly,

W. J. C.

Flint, March, 1855.

#### MICHIGAN STOCK REGISTER.

##### SHORTHORNS.

Numbers with an "a" following them refer to the English Herdbook—all others refer to the American Herdbook, unless otherwise noted.

No. 101.—**USURPER**. Roan bull. Calved July 10th, 1853. Bred by A. S. Brooks, Novi, Oakland county, Michigan.

Dam, Fatima, by Usurper, imported by the Livingston County Association, in 1854, and recorded in Vol XI of English Herdbook, as the property of Messrs. Brooks and Fuller.

1 g. dam, Lady Weddle, by Old Splendor 767.

2 g. dam, Moss Rose, by American Comet, a bull bred by Mr. Weddle of Rochester, out of Charles, imported, and Primrose, an imported cow.

3 g. dam, Red Rose, a cow belonging to the Short-horn herd of Thomas Weddle of Rochester.

Sire, John O'Gaunt.

No. 105.—**FATIMA**. Roan cow. Calved April 5, 1855. Bred by David Brooks of Avon, New York. Now the property of A. S. Brooks, Novi, Oakland county, Mich.

Dam, Lady Weddle, by Old Splendor 767.

1 g. dam, Moss Rose, by American Comet 9.

2 g. dam, Red Rose, a cow from the herd of Thomas Weddle of Rochester, N. Y.

Sire, Usurper, imported, by Upstart, 9760a.

No. 106.—**CAMILLA**. Red roan cow. Calved Dec. 13, 1855, imported by D. Brooks of Avon, N. Y. Now owned by A. S. Brooks of Novi, Michigan.

Dam, Young Sally Gwynne, by St. Thomas 1077a.

1 g. dam, Sally Gwynne, by Prime Minister 2546a.

2 g. dam, Cripple, by Marmion 406a.

3 g. dam, Daphne, by Merlin 490a.

4 g. dam, Nell Gwynne, by Layton 365a.

5 g. dam, Nell Gwynne, by Phenomenon 491a.

6 g. dam, Princess, by Favorite 252a.

7 g. dam, — by Favorite 252a.

8 g. dam, — by Hubback 819a.

9 g. dam, — by Snowdon 1111a.

10 g. dam, — by Warstell's 1111a.

11 g. dam, — by Masterman's bull 422a.

12 g. dam, — by Studley bull 626.

Sire, Fusileer, 11499 of the English Herd Book, a son of Grand Duke 10284a, out of Fidget 2d, by the Duke of Northumberland 1940.

This cow possesses a most excellent pedigree on both sides, and is evidently one of the best bred animals in the United States. This pedigree is verified by reference to volume 10 of the English Herd Book.

No. 107.—**JENNY LIND**. Roan cow. Calved March 18, 1858. Bred by A. S. Brooks of Novi, Oakland county, Mich.

Dam, Strawberry, by Rocket 2d, bred by James Wadsworth of Genesee, from imported Rocket.

1 g. dam, by Major, a bull sired by Defiance, and out of Moss Rose by Weddle's American Comet.

2 g. dam, by Napoleon, a bull bred by Col. Dwight of Massachusetts.

Sire, John O'Gaunt 3d, by imported John O'Gaunt, a bull imported by L. G. Morris of Mount Fordham, New York, and he by the celebrated English John O'Gaunt, bred by John S. Tanqueray of Brent Lodge, England. The dam of John O'Gaunt was Romella, imported, by Flageolet 9130a.

#### HEREFORDS.

No. 1.—**GRAND DUKE**. Calved July 30, 1857. Bred by Thomas Aston of Elyria, Ohio, and now the property of John Morgan, Newton, Calhoun county, Michigan.

Dam, Imported cow Duchess, by Renown 886.

1 g. dam, — by Nobleman 578.

2 g. dam, — by Old Comet 306.

3 g. dam, — by Duke, 304.

Sire, The imported bull, Prince Albert, by Voltigeur 774.

[These numbers all refer to the English Hereford Herd Book.]

Grand Duke took the first premiums in his class at the State Fairs of Michigan and Ohio in 1858, and at the National Fair held at Richmond in 1858.

#### DEVONS.

No. 34.—**MAJOR**. Bull, 3 years old. Owned by Wm. E. Schuyler of Marshall, Mich. Bred by C. H. Williams of Coldwater.

Sire, Duke of Devon, imported.

Dam, Daisy; 1 g. dam, Diana; 2 g. dam, Dairy Maid; 3 g. dam, Victoria; 4 g. dam, Sophia; 5 g. dam, Lady, imported by King & Patterson of Baltimore.

Dam's Sire, Splendid, he by Lord Western, imported.

No. 35.—**BEAUTY**. Cow. Owned by Wm. E. Schuyler, purchased from the herd of E. M. Crippen, Coldwater.

Dam, Old Beauty; g. dam, Old Devon, imported by Wm. Patterson of Baltimore.

Sire, Lord Western, imported by Mr. Vernon of Genesee N. Y.

No. 36.—**OSCEOLA**. Bull, 1 year old. Owned by Wm. E. Schuyler.

Sire, Major.

Dam, Beauty.

No. 37.—**EVA**. Heifer, 2 years old. Owned by Wm. E. Schuyler. Bred by J. W. Hamlin, Willink, Erie Co., N. Y.

Sire, Chingacook, his dam was imported Helena, from the herd of James Quarty, Devonshire, England; 1 g. sire, Uncas, who won the first prize at the National Show at Philadelphia in 1857; "Uncas" dam, Nonpareille, imported; 2 g. sire, Meguntecock, imported.

Dam, Lady Vernon, sired by imported bull Lord Western; 1 g. dam, Leona; 2 g. dam, Young Columbia, bred by E. P. Beck, from the imported herd of King and Patterson.

No. 38.—**LAURA**. Heifer, 2 years old. Owned by Wm. E. Schuyler. Bred by J. W. Hamlin of Willink, Erie Co., N. Y.

Sire, Chingacook.

Dam, Lady Radley by Lord Western, imported; 1 g. dam, Leona; 2 g. dam, Young Columbia. Bred by E. P. Beck as above.

#### HORSES.

**STONE PLOVER**.—Imported Thoroughbred.—Owned by Thomas Williams late of Cardiff, Wales, and now of Plymouth, Michigan. Bred by Earl Spencer at Althorpe, Northamptonshire, England, and sold by him to Count Bathany at his annual sale of yearlings in 1851.

Sire, Cotherstone, by Touchstone, out of Emma, the dam of Imported Trustee. Touchstone, by the Camel; The Camel by Whalebone, he by Waxy; he by Pot-8-oes, he by the celebrated English Eclipse.

Dam, Wryneck, by Slane, out of Gitana by Tramp, the sire of the winner of the Derby in 1832 and 1833, and of the St. Leger in 1823, she out of Miss Foy, by Walton, the sire of Phantom, winner of the Derby in 1811.

Slane was by Royal Oak, out of a dam by Orville, the sire of the celebrated Emilius, and winner of the St. Leger, 1802, Orville was by Beninbrough, a son of King Fergus, a son of the celebrated English Eclipse.

We attach to this pedigree a copy of the bill of sale of this horse, which is as follows: "For value received of Thomas Williams, now of Ypsilanti, Washtenaw county, State of Michigan, formerly of Canton near Cardiff, South Wales, Great Britain, I, Gustavus, Count Bathany, of number 23, Prince's Terrace, Hyde Park, in the county of Middlesex in England, do hereby sell, assign, transfer, release and convey to him and his assigns forever, that certain Bay Stallion, bred by the Right Honorable the Lord Spencer of Northamptonshire, England and sold at his annual sale of yearlings in 1851, known and called "Stone Plover," now in the possession of said Williams, which horse ran for the Derby of 1858, at Epsom, England, and is by Cotherstone, out of Wryneck, by Slane, to have and to hold the same to the said Thomas Williams his heirs, executors, administrators and assigns forever.

In witness whereof, I have here unto set my hand and seal this ninth day of November, A. D. 1853, there unto lawfully authorized by letter of attorney duly executed and authenticated, bearing date the eighth day of June A. D., 1853.

"GUSTAVUS, COUNT BATHANY."

"By Wm. E. CURTIS, his Attorney."

**BAY BASHAW**.—Stallion, bay, 16 hands. Owned by John Bailey of Southfield, Mich. Brought by him from New Jersey.

Sire, Saladin, who was by Young Bashaw; he by Grand Bashaw, the barb imported from Tripoli in 1820, by Joseph Morgan.

Dam, a mare sired by Prize Master by imported Brown Highlander. The dam of Prize Master was got by Prize Fighter, he by imported Expedition; his grandam by imported Messenger. The grand dam of Prize Master was by imported Nimrod, and his great grandam was by imported Messenger.

[This horse we have seen, and found a large powerful, well compacted horse with an unquestionable trotting gait—his stock should prove valuable. His lineage is from the stock that has produced some of the most famous, speedy, long distance trotting horses in the world. We shall in a future number give a few notes on this Bashaw stock.—Ed.]

**BUSSORAH**.—Morgan Stallion. Bright bay in color. Fifteen and a half hands high weighing 1150 pounds. Owned by B. J. Bidwell of Tecumseh, Mich.

Sire, General Gifford, grand sire Gifford Morgan, a grand sire Woodbury Morgan, a g. grand sire Justin Morgan of Vermont.

Dam, Lady Howland, by the imported Arabian Bussorah; grandam by imported Messenger.

[This Horse is one of the most stylish horses in Michigan, and is remarkable for the great beauty and Arabian expression of his head and ears, as well as for the general symmetry of his form.—Ed.]



## The Garden &amp; Orchard.

## American Pomological Society.

REPORTS OF THE STATE FRUIT COMMITTEES.

Prior to the meeting of this Society last fall, circulars were sent to the chairmen of each State Committee, embracing the following queries:

"What six, twelve and twenty varieties of the apple are best adapted to a family orchard of one hundred trees, and how many of each sort should it contain? What varieties, and how many of each are best for an orchard of one thousand trees, designed to bear fruit for the market?"

"What six and twelve varieties of the Pear are best for family use on the Pear stock? What varieties on the Quince stock? What varieties, and how many, of each of these, are best adapted to a pear orchard of one hundred or one thousand trees?"

"What are the six and twelve best varieties of the Peach for a family orchard? What are the best varieties, and how many of each are best adapted to a peach orchard of one hundred or one thousand trees?"

The Society received responses, more or less full, from fourteen individuals and Societies representing ten States, viz: Connecticut, Massachusetts, New York, New Jersey, Pennsylvania, Virginia, Ohio, Michigan, Illinois and Georgia.

In reply to the query "what six varieties of apples are best adapted to an orchard of one hundred trees," the names of forty-one varieties were given; while, at the same time, the Early Harvest, Rhode Island Greening, Baldwin and Roxbury Russet, which were the chief favorites, were only recommended from three or four States.

In the lists embracing twelve varieties, adapted to a family orchard of one hundred trees, ninety-nine varieties are recommended; while the best embracing twenty varieties, is still more extended.

The lists recommended for a market orchard of one thousand trees, vary from three, to twenty-eight varieties in each.

The analysis of these lists furnishes much curious and valuable information respecting the range of different varieties, and the effects of our varied soil and climate upon them.

Baldwin is, perhaps, the leading variety in New England and New York; but it assumes the second or third place in New Jersey and Pennsylvania; while, south of those States, it is not even tolerable. This is also the case in a still more decided sense, with Rhode Island Greening and Roxbury Russet, so long the favorite varieties of the Northern and Middle States. This result might perhaps have been fairly anticipated, as the consequence of removal to a more southern climate: but another and more striking result is, that a removal Westward is equally fatal to the success of these varieties. In this respect we find Ohio, Indiana, Illinois and perhaps Iowa, and portions of Wisconsin and Michigan, uniting in the adoption of a list of fruits peculiar to themselves, and for the most part, unknown to the country at large. Among these are White Pippin, Rawle's Janet, Willow Twig, New York Pippin, Summer Pennock and Ortley; varieties, to a great extent, of merely local celebrity, and to quite an extent, natives of this region.

The cause of this anomalous state of things has been a fruitful source of conjecture. It has been attributed to some peculiarity in the soil; a supposition which derives force from the fact that this region lies mainly within what is called the prairie region of our country. Others urge that climate is mainly chargeable with this peculiarity; a theory which derives its force from the same cause, as the dry piercing winds of this region give to its winters the effect, in some degree, of a removal toward the north; while the summers retain the fervor of a more southern climate.

In the mountainous region of Virginia, Carolina and Georgia, fruit growing is assuming an unexpected importance; stimulated perhaps by the opening of railroads and other means of access to the seaboard markets, and encouraged by the production of varieties native of those regions.

The varieties recommended by the Georgia Pomological Society, as the best six for that State, are Red June, American Summer Pearmain, Horse, Meigs, Bachellor and Nickajack; all of which, except the two first, are unknown north of the Ohio river, and none of which are included in a list of six from any other State.

Notwithstanding the variable character of the Pear, we find but twenty-two varieties mentioned in the lists of six, while the Bartlett enjoys the enviable notoriety of appearing in every list reported for free stocks, whether from the North, South, East or West. Next to this in rank, appear Seckel, Flemish Beauty,

Fondante d'Automne, Winter Nelis, Vicar of Winkfield and others, which appear to manifest an almost universal adaptation to the varied climate and soil of our country. A gratifying fact, when we recollect that heretofore, this fruit has been considered very variable, and of doubtful adaptation to any portion of the United States. In an article (published in these transactions) read before the Society by D. Redmond, of Georgia, associate editor of the Southern Cultivator, he ventures the following remark: "We have much reason to believe that in the South only is the Pear destined to arrive at its highest development and perfection; and that it can here be grown with that certainty and profit which alone justify the care and attention which this somewhat fastidious and exacting tree demands."

The same writer in speaking of the Peach says: "The South is the true home of the Peach; and it attains with us, undoubtedly, its very highest degree of perfection. It has long been, and is yet, the favorite fruit of the people, no less for its intrinsic excellence, than for the ease with which it may be propagated from seed, and the early period at which it comes into bearing. Thousands of the very finest seedling peaches, unnamed and comparatively unknown, are scattered throughout the South, along the road-sides, in the open fields, and in the remote corners of fences and hedges. The tree will sometimes bear fruit the second year from the seed, and always the third year; and when "worked" succeeds well either grafted or budded."

These glowing statements contrast broadly with the reports of committees from the North; the writers from this region, in many cases, entirely ignoring this fruit, or speaking of it as unsuccessful or unprofitable. Of twenty-four individuals or Societies from whom communications were received, only seven or eight give lists of this fruit.

The varieties most in favor, as indicated by these reports, are Early York, (Serrate?) Early Newington, Crawford's Early, George the Fourth, Coolidge's Favorite, Troth's Early, and several others of minor note.

A close examination of these reports leads to the conclusion that the region along the seaboard is not adapted to this fruit, (excepting perhaps New Jersey and Delaware,) the product for the most part, being limited in quantity, and the business generally regarded as uncertain and unprofitable. The same conclusion seems to hold good with reference to the prairie region of the Northwest, where the fruit buds, and frequently the trees are liable to become winter killed, probably owing to the richness of the soil, and the warmth of the autumns, tending to the production of a late and unripened growth. In my next, will be given a notice and examination of the report of the Fruit Committee for our own State.

T. T. LYON.

Plymouth, April 11, 1859.

## Renewing Heat in old Hotbeds.

The new method of exciting heat in old hotbeds, communicated to the *Gardener's Monthly* by Dr. Uhler, has brought to my mind a process of accomplishing the same result by chemical means, which I adopted, with success, some years ago, and which may serve as a useful hint to gardeners, in connection with the new method above alluded to.

Dr. Uhler renewed the heat of old hotbeds by pouring into them a hot solution of glue, distillery swill, &c., nitrogenous and rapidly decomposing substances, which act as a sort of yeast, or fermenting agents, to excite decomposition in the substance of the bed.

I accomplished the same thing, using a hot solution of potash in a partially caustic state. The circumstances were these:

I had several hundred feet of hotbeds, devoted to the raising of early vegetables and plants for market. In mid-winter my gardener informed me that the beds were declining in heat, and that, if not speedily attended to, we should lose the entire labor of the season. We were ten miles from the city, on the river, which was frozen over, and travelling was bad. We had no manure on hand, and could not obtain any without great labor and expense, and even if we had, it would not produce sufficient heat in time to save the beds. I immediately turned to chemistry for aid. We had collected several hundred horse loads of oak and pine leaves (chiefly what is called pine straw) which lay in a heap near the hotbeds, covered and mixed with snow and ice. To excite a heat sufficient for hot-beds, in this unpromising mass, in mid-winter, might seem a hopeless task. But I resolved to try it, by the aid of potash in hot solution. I did so, and succeeded perfectly. The snow and ice in the heap served the purpose of water; and the heap speedily showed a good heat, and formed an admirable lining for the hotbeds.

I poured the same solution into the hot-beds themselves, and in a few days we had heat enough and to spare.

I will add a few practical hints upon the use of potash, soda-ash and other alkalis to excite heat in old hot-beds, and the means of increasing the power of these agents, when great heat is required, or when the temperature of the air is very low, and the beds very old and very cold.

Potash, and lye from wood ashes are the same, every body knows. But these substances, although powerful decomposing agents, and often sufficiently so to answer the purpose, are not in the truly caustic state, but may be rendered so by the addition of freshly slacked stone lime, and they will show a greatly increased power when applied to hotbeds. In mixing them, add one and a half parts of lime to one part of potash or equal parts of lime and lye. The chemical laws and processes by which this result is obtained, I will not take space to describe.

Carbonate of soda, washing soda, or soda ash, may be used in place of potash, with precisely the same effect and equal success, by mixing freshly slacked lime with the soda in the same way as with potash.

If you wish a very quick and powerful heat, add to the hot solution of potash or soda, fluid glue or distillery swill, blood, animal oil, or Peruvian Guano, say one quart of solution of glue, or animal oil, or one pound of guano, to the gallon of potash or soda mixture, or equal parts of potash or soda mixture and swill. After applying the mixture, add plenty of boiling water. The hotter all the solutions are, the better.

The potash or soda alone, I think, will prove more powerful than the solution of glue, and will continue its effects for a longer time, but with the addition of glue, animal matter, swill or guano, will meet the utmost requirements of the gardener in the coldest seasons.

In using potash or soda as advised, these substances are not lost, but will be retained by the bed of manure, and will be worth their cost as fertilizers in the garden.—By J. S. Houghton, M. D., in *Gardener's Monthly*.

## The Cassabar Melon.

The Cassabar Melon will succeed wherever the common Nutmeg Canteloup may be grown. Here, in a country very ill adapted to melon-growing, it being elevated and cold and the soil decidedly clayey, I have succeeded in growing it to perfection and in great abundance. In 1857, from a few seeds I planted two hills, which produced fifteen melons, by far the most luscious that I had ever tasted. The smallest of these measured eight inches in length by four and a half in transverse diameter, the largest 13½ inches by 7½. The same year I planted a considerable lot of the Nutmeg variety, the result of which was a total failure.

Last season the thirty-second part of an acre yielded me over seven hundred pounds. The Cassabar Melon has a rough netted skin, like the Nutmeg. The flesh is a greenish white, exceedingly rich, sweet, aromatic, and perfectly free from all toughness or coarseness and fibre. The rind, when fully ripe, is scarcely thicker than a silver dollar, and the seed cavity quite small. Nine-tenths of the entire melon is delicious flesh.

In their culture last season I had a little hot-bed frame made for each hill, of such size as to be covered by two 10 x 12 inch panes of glass. I planted about the 1st of April. The melons commenced ripening early in August, and thence on until cut short by the frost. I would strongly recommend this plan to all whose location, like my own, is rather cold. It will enable them to plant at least six weeks earlier than they could with safety otherwise, and as a consequence, have the fruit on the table a month earlier.

The greatest enemy of the vines is the striped bug, and the best remedy I know of is a mixture of hen-dung and water applied plentifully under the vines. The bugs become disgusted, and leave. I have tried guano and sulphur under the vines, but these, though effective, injure the plants at every point of contact, while hen dung greatly stimulates their growth.—J. F. EVANS, in *Wallace Pa., in Gardener's Monthly*.

## HORTICULTURAL NOTES.

## Raising Onions.

Orange Judd, the editor of the *American Agriculturist*, has favored us with a small pamphlet containing quite a series of papers on the culture of the onion, written by a number of his correspondents. Where onions are grown as much as they are on a large scale in Connecticut and Rhode Island, and for supply of a large shipping demand, with all the ingenuity of the New Englander applied to the economy of the labor necessary, such a collection of experience is valuable, and there is much suggestive matter on this subject in this pamphlet.

## One Hundred Apple Trees for a Small Orchard.

A correspondent informs us that he is about to purchase one hundred apple trees to set out as a general small orchard for family use, with a design of having them also as profitable as possible, and he wants to know, what varieties, and what proportion of each variety would meet his wants. To this we respond as follows. Be sure to procure in the first place good straight well grown three year old trees, if you want to have them come into bearing at an early date, and be sure and set them out with all their fine fibrous roots preserved and well spread out, and not too deeply covered.—Each tree should be staked with two or three stakes to keep it in its proper position, and secured to the stake with stout straw or hay ropes of such a thickness, that the bark of the tree would not be injured by rubbing. The varieties and their proportion, might be, two Early Harvest, four Red Astrachan, four Michigan Golden Pippin, two Gravenstein, one Sweet Bough (or Large Yellow Bough), ten Fall Pippin's, five Fameuse, five Norton's Melon, twenty five Rhode Island Greening, five Esopus Spitzenburgh, twenty five Red Canada, ten Talman Sweet, and two Bailey Sweet, which makes up the 100 trees. Possibly this list may not suit the views of many, but we shall be pleased to hear from other correspondents on this point.—For a succession of summer, autumn and winter fruit, the above will afford to a family a good supply during the year, besides leaving them a quantity, when the trees come into full bearing that will be of the most valuable sorts for market.

## Advice about Setting out Plants.

Plants from the greenhouse should not be set out until all danger from frost is over. In this State that can hardly be said to be the case before the middle or last week in May and sometimes the frosty season extends into June. "Plants that are fresh from the greenhouse should remain in a sheltered spot in their pots for a few days till their leaves are somewhat hardened," says the *Gardener's Monthly*. "Before turning them out of their pots to the flower beds, water well first; the soil must be pressed firmly against the balls of roots, as they are planted in the ground."

## Mowing Lawns.

As soon as the grass on the lawns commences to grow, if it has had a top dressing of manure in the winter, whatever straw may be on should at once be cleanly raked off and as soon as it is long enough to take the edge of the scythe, it should be mowed. It is of the first importance that the first mowing should be done as early as possible in the season. If left to grow long before the first cutting, the leaves get yellow at the base, and at every cutting after the yellowness appears, totally destroying the fine green color which gives the lawn its chief attraction. Where a first-rate mowing is desired, it is best to roll the grass the day before cutting. The grass is then pressed all one way, and cut evenly, and any dirt or stones pressed beneath the surface that would otherwise take the edge off the scythe. A good lawn-mower keeps his scythe level sharp. Some grind a little before each regular set to mowing. Those who are not accustomed to mowing lawns, should take but a few inches in width at a time, so as not to "score." With a little thought and judgment, any field-mower can soon become a good lawn hand. A sharp scythe is the chief element of success.—*Gardener's Chronicle*.

## Worth a Trial.

We see it stated that if an onion be planted in the same hill with melons or cucumbers, these plants will not be infested with bugs. This may not be correct, who knows? A friend suggests, that the onion affects the bugs principally about the eyes, so that not being able to see clearly, they cannot find their feeding quarters, and are starved out, and die with tears in their eyes, at the successful growth of the vines.

## Quinces should have Dry Soil.

E. A. R., in the *Ohio Farmer* writes: "The best quinces I ever saw were raised in the city of Racine. Doct. Foster of that place raised some that measured eleven inches in circumference. And in the year 1855, I had two trees from which we gathered about three pecks of the finest I ever saw. The next winter they were both killed by the excessive cold and drought. The thermometer went as low in Racine, as 26°, but it was not the cold alone. The air that winter, was exceedingly dry, and however dry weather may be for comfort, it is very dangerous for fruit trees—especially those like the quinces that had been fed by stimulating manures. Fruit trees in the winter of 1856 were frequently frozen and dried so that the bark curled and separated from the body of the tree, but many of the trees budded and blossomed the next summer, the stems of which were dead, and soon the whole tree was dead. Now, quinces like peaches, want a dry soil—where no water will ever stand about the roots, and the ground must be drained or trenched at least twenty inches. Let none flatter themselves that their ground does not need deep working."

## Setting out Shade or Fruit Trees.

The great difficulty in setting out trees and getting them to live is the drouth in the summer time. In order to prevent the drouth from injuring them, take long manure or straw and lay round the roots and pile stones or wood or boards on it. This will keep the ground moist and the trees will all live. Wood is good without the straw but better with it. Try it and see.—W. J. C., *Flint*.

## The Fruit Crop.

We are glad to learn from several sources from the country that the severe frost of last night and the night before have done no serious harm to the fruit crop. The peaches are in full bloom, and have been slightly thinned out; but pears, apples and cherries are not so forward, and the belief in the country is they have sustained little injury, if any.—*Louisville Journal*, April 6th.

## Peach Trees in Demand.

A Maryland newspaper relates that one firm is planting out 80,000 peach trees, on a farm near Chestertown in that State. The orchard was to occupy 300 acres.

## Apricots in Bloom.

The *Ohio Farmer* notes that Apricots are already in bloom, and seem to be uninjured by the frost.

## Vitality and Germination of Seeds.

CONDENSED FROM THE LONDON GARDENER'S CHRONICLE.

Concluded from page 116.

At a meeting of the British Association for the Advancement of Science, on the 15th of August, 1848, Dr. Daubeny said that he had recently heard of a well authenticated case of seeds from the inside of a mummy producing plants when sown; the only misfortune in this case was, that the seed produced maize. Now, maize is a plant of the New World, and, although grown in Egypt now, must have been introduced into the mummy since the discovery of America. All kinds of tricks were played with mummies for the purpose of deceiving travelers. Mr. Babbington stated that he had never yet seen a case of the supposed growth of mummy-wheat that would bear investigation, and he had the strongest impression that no such growth ever took place.

The above named Association, it will be remembered, appointed a committee, in 1841 to experiment on the growth and vitality of seeds, and issued a circular with the view of determining the following questions:

1. What is the longest period during which the seeds of any plant, under any circumstances, can retain their vegetative power?
2. What is the extent of this period in each of the natural order, genera, and species of plants, and how far is it a distinctive character in such groups?
3. How far is the extent of this period dependent on the apparent character of the seed, such as size, hardness of covering, hardness of internal substance, oiliness, mucilage, &c?

4. What are the circumstances of situation, temperature, dryness, seclusion from the atmosphere, &c., most favorably to the preservation of seeds.

Botanists and others were invited to make the following series of experiments, and to communicate the result to the Association:

**Retrospective Experiments.**—First. By collecting samples of ancient soils from situations where vegetation cannot now take place, and by exposing these soils to air, light, warmth and moisture, to ascertain whether any, and if any, what species of plants spontaneously vegetate in them.

Care must, of course, be taken that no seeds obtain admittance into these soils from external sources, such as the air or water introduced to promote vegetation. These ancient soils are either natural or artificial deposits. The natural deposits are either of past geological periods, or of the recent period.

The deposits of past periods are either secondary or tertiary.

There is every possible reason to believe that the age even of the latest of these deposits is far beyond the maximum period through which vegetative powers can be preserved; yet, as many accounts are recorded of seeds vegetating spontaneously in such soils, it would be well to set these statements at rest by actual experiment. In such experiments, state the formation and describe the geological phenomena of the locality, with the depth from the present surface at which the soil was obtained.

Natural deposits of the recent period may be classed as follows: Alluvions of rivers, tidal warp-land, shell marl, peat, surface soil buried by land slips, surface soil buried by volcanic eruptions. In these cases, state the nature of the soil, the depth of the surface with the present rate of deposition, or by consulting historical records.

It would be well to submit to experiment a series of samples of soil from successive depths at the same locality.

Artificial deposits are as follows: Ancient tumuli; ancient encampments; the soil beneath the foundations of buildings; the soil with which graves, wells, mines, or other excavations have been filled up; ridges of arable land &c. In these cases, state as before, the depth from the surface, and ascertain from historical sources the approximate age of the deposit.

Second. By trying experiments on actual seeds which exist in artificial repositories. These are—seeds in old herbaria and botanical museums; seeds obtained from mummies, funeral urns, Pompeii, Herculaneum, &c.; dated samples of old seeds from nurserymen and seedsmen. In these cases, state the circumstances in which the seeds have been preserved, and their date as nearly as it can be ascertained.

**Prospective Experiments.**—In this mode of experimenting, it is proposed to form deposits of various kinds of seeds under different conditions, and to place a portion of them at successive periods in circumstances calculated to excite the process of vegetation. In the case of certain species of families of plants, it would, perhaps, require many centuries to determine the limit of their powers of vegetation; yet it is probable that a very few years would suffice to fix the maximum duration of the greater number, and many interesting experiments might thus be obtained.



even by the present generation of botanists. It is proposed, then, to form a collection of seeds of a great variety of plants, (including as far as possible, at least one species of each genus,) and to pack them up (carefully labeled) either alone, or mixed with various materials, as sand, sawdust, melted wax or tallow, clay, garden mould, &c., in various vessels, as glass bottles, porous earthen jars, wooden boxes, metallic cases, &c., placed in various situations as under ground, in cellars, dry apartments, &c. At certain intervals, increasing in extent, say at first every two years, then every five, every ten, a small number (say twenty) of each kind of seed, from each combination of circumstances, to be taken out and sown in an appropriate soil and temperature, and an exact register kept of the number of seeds which vegetate compared with those which fail. In this manner, it is believed that, in regard to the large majority of plants, the limit of their vegetative durability would be determined in a very few years, and a large mass of vulgar errors on this subject, which now pass current for facts, would be cancelled and exploded.

The most effectual way of exciting vegetation in seeds of great antiquity is to sow them in a hot-bed, under glass, and in a light soil moderately watered.

#### Cultivation of Oats.

*Gradual deterioration of this Grain—Cause of the recent Failure of the Crop.*

BY EDWARD MASON.

Mr. Norton found that when a soil was deficient in silica, the straw was unable to sustain the weight of the grain, and became lodged or laid a considerable time before ripening: a failing which always causes the grain to be light and inferior. Soils lacking silica may have this ingredient supplied by the addition of fine silicious sand. Leaf mould, the remains of decayed foliage, is generally deficient in silica, because that ingredient has been dissolved by frequent saturations in water, in fact, washed out, and carried downwards to be deposited in the subsoil. When green crops are grown the roots penetrate deep into the earth, draw up the silicate and phosphates and deposit them in their tissues. When these roots are fed to cattle, or plowed in as manure, these ingredients are returned to aid in building up future crops, but when both straw and grain are removed, and no compensation given to the soil for the substances which have been absorbed, the most fertile soils become exhausted.

The inferiority of the American Oat crop is generally attributed to the effects of climate—the shortness of the spring—the excessive heat of summer, &c., but seldom, if ever, to the neglect of the farmer in the preparation of the soil, and the selection of seed, and to the want of a preparation of crops. The continual growth of grain crops will exhaust the most fertile soil, for they draw on it for nutriment, and depend but little on the atmosphere; green crops on the contrary with their broad leaves, extract a considerable portion of their support from the atmosphere. The American farmer sows oats too frequently on the same soil, at every crop diminishing those ingredients which form the natural food of this cereal, and encouraging the growth of weeds. Instead of being used for fodder or litter, the straw is in some cases sold in the market, and no return made to the land for those ingredients of which it has been deprived.

That the land is not drained, the farmer is not to be blamed, as it is in many cases impossible for him to perform this necessary operation, but in most cases a great deal might be done towards removing stagnant water, and clearing dikes and creeks from all obstructions. Land which for one part of the year is covered with water, and for the other exposed to the heat of the sun, becomes hard and bakes into impenetrable clods, in which plants of every kind starve for want of nutriment, and wither for lack of moisture.

Drainage has been introduced into tropical countries for the purpose of causing pastures to retain their verdure during the burning summer of these regions, and the operation has been perfectly successful. Oats and every other kind of grain crop, withstand drouth better on drained than on undrained soil, for the roots can penetrate much deeper in the former than in the latter, and of course are better able to sustain the health and vigor of the plants.

The most approved and best varieties of the oat, are the Potato and Hopetown: the latter has sprung from the former, both are remarkable for the weight and plumpness of the grain, and in their pure state, for their freedom from awns or tails. Yet both of these varieties, even in the best soils, are subject to deterioration, and require the greatest care in order to preserve the purity of the seed. Almost every kind of seed degenerates in

old land, or that which has been long in tillage, whilst new land has a magical effect in renovating it. When a proper rotation is practiced, land is laid down to grass after being tilled for a few years, and broken up again after yielding a few crops of artificial meadow. Land is wonderfully refreshed by remaining a few years in grass, and produces much better crops of grain or roots, than if kept continually in tillage.

The first settlers in a new country cannot be expected to excel in improved agriculture, they have to hew down and clear away the forest, or to fence in and break up the prairie, and to derive a precarious subsistence from the first fruits of the soil: they prepare the way for a better order of things. Science and capital will occupy the land which these laborious adventurers have cleared, and bring to their aid all the modern improvements and discoveries in agriculture. There are strong reasons for supposing that in a few years, a wonderful change for the better will take place in American husbandry, and that immense tracts of land will be cultivated according to the most approved system of agriculture. Steam plows and cultivators have been brought to a high degree of perfection, and at the last exhibition of the Royal Agricultural Society of England, at Chester, a prize of \$2,500 was awarded to Mr. Fowler, of Cornhill, for his steam plow, also a gold medal to Messrs. J. and T. Howard, of Bedford, for a set of "Smith's patent apparatus for cultivating land by steam power."

After repeated trials the judges decided that the work can be done by these machines more rapidly and effectually, and with less cost than with the ordinary implements, and horse-power, and after calculations to this effect, they say "these money results, satisfactory though they be, are not we consider the only points of advantage which the introduction of these machines confers upon agriculture. By their aid we can carry out a complete system of autumnal cultivation, now so generally admitted to be desirable, but which it is extremely difficult to effect with the ordinary force of a farm, in ordinary seasons, and under ordinary circumstances. We can continue our cultivation by plowing, or otherwise, well nigh regardless of weather, and upon land which would not bear the pressure of horse labor. We have perfect control over the work we wish to have done, and when it is done, it is found to be more regular throughout, and to be in a more open and desirable condition than could be obtained by the most judicious application of the ordinary implements of a farm. These are points which we cannot too strongly recommend to the attention of those interested in the advancement of agriculture." The introduction of these machines cannot fail to cause a vast improvement in the agriculture of the United States, for it must be evident to all, that when they promise to be so beneficial to the English farmer, who is favored with an open winter, and a long spring, they must be truly so to the American agriculturist, who cannot plow his land in winter, and has but a very short spring in which to perform his work.

Scientifically speaking, the oat belongs to the order *gramineae* or grasses, and the genus *avena*, of which there are several species, but the *avena sativa* is the only one which is cultivated. There are about forty varieties of the oat described in Lawson's Agricultural Manual, and nearly sixty exhibited in the museum of the Highland Society in Edinburgh. New varieties are being almost constantly produced from the effect of differences in soil, climate and cultivation, or they may be originated by impregnation or selection. Every farmer has it in his power to improve his oats by choosing the finest and best heads, with the shortest and plumpest grain, sowing the seed far apart from the main crop, and continuing to propagate from it until a sufficient quantity is thus procured. Agricultural Societies should offer premiums for new varieties of oats, and also for useful experiments to determine what varieties are best suited to their several localities, and the kind of manure that is best adapted for increasing their growth.

Oats may be divided into three classes, viz: The Black, the Don or grey, and the White. The seeds of the first class are distinguished by their black, or very dark color, the purest and best being always the darkest, and freest from mixtures of white oats. Owing to the hardness and early maturation of the black oat, it is well adapted for cold soils, and elevated regions, in fact, a good crop of it may be obtained from soils in which the best varieties of white oats would fail. The common black oat has been cultivated for a long time in Europe and America, its straw is rather short, and its panicle of moderate size, its

husk is of a shining black color, but of a lighter hue towards the point.

The Black Riga, or Archangel Oat, is a very early and extremely prolific variety which was originated about thirty years ago. Its straw is long, but wiry, and not liable to be lodged or "laid;" its grains are small and plump, and the husk is of a brownish color, but not near so dark as the common black oat.

The Black Tartarian, is the best of all the "colored" varieties. It is well suited for poor, damp soils; and mountainous districts, it is also extensively sown in swamps, and coarse moors where white oats would not ripen. It is easily distinguished from all other varieties, by its panicle being more contracted and altogether confined to one side. The grain always hangs to one side of the panicle, and on this account, is not easily shaken by the wind.

The Black Poland Oat is considered to be an improved variety of the old Black Oat, to which it is somewhat similar in shape and color. It is highly esteemed in some places.

The Don, or Dun Oat is said to have been imported into Great Britain from the banks of the Don, a river of Russia: it is of a dun or grey color and is generally sown as a winter oat. It was first used for sowing with winter vetches, in order to support the vines in summer when they attain full size. Common oats being sometimes winter killed. When sown in the fall, it stands the winters of Great Britain well, and ripens a fortnight before the ordinary crops of spring oats. It might bear the winters of the Western States, and in such case, would be a valuable acquisition to the farmer.

There is a variety called "Tawny Oats," which is said to be very hardy, and to stand the winter of this country well. At the last Ohio State Fair, held at Sandusky, we noticed a farmer selling small parcels of this grain, at a dear rate, and with a very brisk demand. He said he had grown it for the last two years, that it stands the winter as well as wheat, and ripens very early in autumn. This oat is well worthy of a trial. There will soon be an excellent opportunity for importing all kinds of farm seeds direct from Europe to Michigan, by the line of vessels freighted by Messrs. Aspinall & Co., and other Detroit merchants. A few cargoes of good seed oats, are much required and would remunerate the importer.

The Potato Oat which has been so celebrated and so extensively diffused, sprung from a single plant which in 1788 was discovered growing in a potato field in Cumberland, and was named from this circumstance. The farmer who found it, observing its extraordinary size and vigor, preserved the seed, and sowed it separate from all other kinds, and continued to do so until he procured enough to supply himself and had some to sell to his neighbors. From that time until the present day, this excellent variety has been spreading all over the world. It is now almost lost amid the numerous kinds which have sprung from it. The straw is rather short, its panicle compact and regular, and the grain in its pure state is plump and awnless. It is never productive in deep rich soils, especially when newly broken up, but like all other valuable cereals, it is subject to deterioration, and requires suitable soil, early sowing, full maturity, and a frequent change of seed, in order to preserve its purity.

(To be continued.)

#### The Herefords and the Shorthorns.

W. H. Sotham is again in the field, criticizing Shorthorns, and their treatment. The *Country Gentleman* recently announced that S. P. Chapman, the well known Shorthorn breeder, had secured the entire herd of Thos. Richardson, of West Farms, in Westchester county, New York, and had again commenced the business of breeding. The herd was also referred to as "being bred more deeply in the celebrated Boothe blood than any herd in this country."

On all this Mr. Sotham makes some remarks in the April number of the *American Stock Journal*, that contain much matter of interest to breeders, but which must at the same time be taken *cum grano salis*, as after all, a large portion of the breeding world do not agree with Mr. Sotham in practice, whatever they may esteem him worth in theory. We copy a portion of what is said:

"The idea that Mr. Boothe refuses to sell any more male animals seems to me to be 'humbug' in the superlative degree. If his 'famed notoriety' has been attained through agricultural papers, by such puffs as the above, he may well wish to retire, as I know there is no breeder who has bred more forced bulls than he, and who well knows the expenditure of such treatment. Mr. Boothe never dares venture to show an animal in store condition, but has always loaded them with flesh

to take the public eye, and encourage editor's pens, thinking his pecuniary interests would be advanced by it; but I should like to see his balance sheet, even at ruinous prices.

"Now let me call your attention to another gentleman named in that puff, Mr. Chapman, who for a long time was the owner of 'Halton,' bred from the stock of Mr. Bates—another name puffed by editors beyond all reason.

"This bull Halton was puffed by Mr. Chapman and his 'friendly editors' in many agricultural papers, his portrait exhibited in different positions, as a sufficient guarantee for an editor's commendation. These portraits always showed straight tops and straight bottoms, appearing as if drawn by a ruler. He was always loaded with flesh to hide his extensive paunch and hollow crops, and to keep this flesh up with oil-cake or meal, mellowed leathery hide, but increased his immense, coarse buttocks. His portraits were exhibited to the public with flattering comments, as an ideal Shorthorn, finishing his imposing career in American Shorthorn Herd Book.

"A worse handling bull I never put my hand upon, nor did I ever see one of his descendants but inherited his miserable quality. I have always considered such handlers a curse to the country; they are no profit to breeder, feeder, butcher, or consumer. Still the numerous puffs this bull received by 'some' editors who knew nothing but fleshy size, made him notorious, and induced his owner to advertise him to stand at \$20 per cow,—more money than he (the original) was ever worth. Such a bull will suit the 'taste' of men who do not handle cattle, but not that of practical judges.

"When Mr. S. P. Chapman was put on chairman of sweepstakes committee for herd prize at the United States Show, at Philadelphia, in 1857, the Shorthorns, Herefords, Devons and Alderneys contended for it. This would have been an exciting contest, had all the judges appointed been impartial. The Shorthorn bull Neptune, noted in the second puff (who, the public are informed, has been in ill health, but now convalescent, 'and in as good condition as he ever was'), was there exhibited, in Shorthorn herd, with four females. His size was attractive to the eye, obtained by his pampered and unnatural growth; his legs long and large; his paunch heavy and crop light, notwithstanding his load of flesh; his skin thin and handling flabby. The cow, which was considered the largest and the best, was also loaded with flesh, and exactly of the same character as Neptune. One other of the same character was exhibited, with two others of better quality, making the four females. This herd had no uniformity in quality, symmetry, or size, and had been forced to the utmost from their birth; not a thing, however expensive, was spared to bring them attractively to show, and so evidently unnatural that every man of observation and common sense could see it. Their fine cloths, close sheds, shining coats, made so by constant grooming, attracted a crowd, that crowd created an excitement, that excitement called forth editors' praising pens and flattery, by which such bubbles are blown."

#### Stingless Bees.

Professor Kirtland of Cleveland, in the *Ohio Farmer*, propounds the following queries relative to bees, without stings. We incline to think that bees without stings will be also without honey, and when found wont amount to much. However, there may be such things, and the Professor thus remarks: "Huber, according to his memoirs by Jardine, learned, in the last years of his life, of the existence in Mexico of honey bees not furnished with stings, and he was, by the kind exertions of a friend, soon after gratified with a colony of that species."

I distinctly recollect reading, in some journal—perhaps Dr. Mitchell's Medical Repository—some fifty years since, of a similar colony having been received in the city of New York, and if my memory serve me correctly, it was placed for wintering, in the greenhouse of Dr. Hosack. Of the ultimate fate of either of these, we are uninformed. That such a species does exist in Mexico, or at least one which is little disposed to use that armature, if it actually possesses it, there is probably little or no doubt, yet it is remarkable that more should not at this date be known of its habits and history.

During the late war with Mexico, there were many of our citizens associated with the invading armies, who were well capable of collecting facts and making correct observations in all departments of natural science. Cannot they furnish us with more full and authentic accounts of that insect?

Cannot Mr. Langstroth, or the Agricultural Department of the Patent office, throw some light on the subject?

#### HOME NOTES.

##### Wool Depots and Wool Dealers.

We call attention to the advertisement of the Wool Depot of the Messrs Goodale & Co. at Cleveland. We believe them to be as well acquainted with the responsibilities of the commission system in wool as any firm can be at the west, and perfectly reliable.

It will be seen also that our townsman, S. Folsom, is also on hand for the wool trade this year. He has made the largest purchases of wool during the past winter that have been made in this city.

##### Devons for Sale.

We call attention to the advertisement of Wm. R. Schuyler, who advertises a number of Devons for sale from his herd. As to their quality and directness of descent from imported stock, we request our readers to examine the pedigrees which are published in the Stock Register of a portion of this herd.

##### The Windsor Nurseries.

Mr. James Dougall, it will be seen by reference to his advertisement, is still in the field on the Canadian side of the river, with a large assortment of grape vines, strawberries, ornamental trees and shrubs, and fruit trees of all kinds, except peaches. Windsor is growing so fast, that it rather crowds Mr. Dougall on one side faster than he can get ready to go, so that he is obliged to sell out at cheap rates rather than be at the expense of removing his stock, which is extensive.

##### A Prime Hereford Bull for Michigan.

We learn with great pleasure that Mr. John Morgan of Newton Calhoun County, has purchased the very excellent Hereford bull Grand Duke, belonging to Mr. T. Aston, of Elyria, O. This bull was shown at the State fair in Michigan last fall, and took the first premium. There was no competition, but he was universally pronounced worthy of it, as he was admired by every man who knew anything about stock. This bull also took the first prize at the Ohio State Fair of 1858, where we saw him exhibited, in a ring with the herds of Shorthorns and where he was admitted also to be first rate in his class. He also took the first premium at the Great National Fair at Richmond Virginia. This is an excellent beginning for a herd of Herefords, of the best quality in this state, and we can assure our friends in Calhoun that they may cross their best native cows with Grand Duke and be sure of getting a grade animal that will prove a decided step forward as a profitable animal for any purpose, either in beef or dairy. The pedigree of Grand Duke will be found in the stock register.

##### English thoroughbreds to be tried here.

Porter's *Spirit* of last week announces that a gentleman of New York has imported three horses of unmistakable quality, which are to be tested on the turf in the same manner on this side of the Atlantic, as Mr. Ten-Broek has tested his stable in England. The first of the lot is a bay colt by Sweetmeat out of Mitre by Cowl. Sweetmeat was a racer of great merit, having started twenty-four times, and won twenty-two races, and losing but once, the other heat being a dead match, in which the stakes were divided. He was got by Gladiator. Cowl is a son of Bay Middleton, out of Crucifix, by Priam.

The second is a filly named Fleetwing Monicuts, by Bolingbroke out of the Queen of Cyprus. Bolingbroke is by Taurus, which *Census* mentions as being a two year old that could nearly fly over the two year old course at New Market, with any amount of weight on his back.

The third is a bay gelding named Prince whose pedigree is yet unknown.

##### Enquiry about Potatoes.

Arthur D. Power, of Farmington, desires information as to the qualities of three varieties of potato, especially with regard to their cultivation in this State. These varieties are the Prince Albert, Davis' Seedling, and the Peach Blossom. Who has tried these varieties?

##### The Macomb Co. Ag. Society.

We learn that the Macomb county Agricultural Society will hold their annual fair this year at Utica. The citizens of that place have fitted up a splendid ground, with a half mile circular track, for the show of horses, which is reported to be a full one.

##### Age of Sheep for Mutton.

A late English writer says: "A sheep to be in high order for the palate of the epicure, should not be killed earlier than five years old, at which age the mutton will be rich and succulent, of a dark color, and full of the richest gravy; whereas if only two years old, it is flabby, pale and flavorless."

—The first agricultural association which was formed in this country was known as "The Philadelphia Society for promoting Agriculture," established in 1785. Premiums were awarded for the improvement of certain articles of domestic manufacture, and a Mr. Mathewson, of Rhode Island, received a gold medal for the best sample and greatest quantity of cheese exhibited.



## NEW ADVERTISEMENTS.

GOODALE & Co., Cleveland, O., Wool Depot.  
W. M. E. SCHUYLER, Marshall, Mich., Devons for sale.  
B. J. BIRWELL, Tecumseh, Mich., Bessorsah.  
JOHN MOSES, Rochester, N. Y., Female pills.

## ANSWERS TO CORRESPONDENTS.

J. S. T., *Ligon*.—Send the paper forward. Any observations of that kind which are the results of actual practice are always acceptable.  
We have several communications on hand of much interest, which are filed for publication, but which are crowded out for this week.

## MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, APRIL 16, 1859.

## A Few Words About Ourselves.

We presume that our readers are by this time acquainted with the report made to the Board of Education by the editor of this paper, on the subject of the Agricultural College, and which was published last week. The plan or design was received so favorably, that the Board tendered to the author the position of General Superintendent of the Farm, with the request that he should name the terms on which he would accept it. The tender was unexpected, and certainly the position was unsolicited. With the members of the Board of Education we had, previously to meeting them at Tecumseh, little or no acquaintance.

After some deliberation with a few friends who are warmly interested in the ultimate successful and complete development of the College at Lansing, we have signified to the Board of Education, that the position at the College which they have done us the honor to tender, in a manner marking so emphatically their confidence, is accepted. This acceptance, however, does not by any means close our connection with the MICHIGAN FARMER. The position at Lansing will give us opportunities for observation, and for remarks that we hope will render the FARMER still more worthy the support of the agriculturists of the State, than it has ever been. The experience daily gained in the reduction of as heavy timbered land as there is in the State, to the best and most approved arable condition, would of itself afford a valuable series of the most useful observations; but when to this is added the co-operation of a large body of intelligent students, under the instruction of a corps of Professors, whose sole teachings are to be with the design of developing practical results from a combination of the sciences applicable to husbandry, with actual practice in the field, it may be reasonably expected that the FARMER will prove more valuable and more useful to the farmers of Michigan than it has yet had opportunity or means to be.

The duties which have been assumed, of course, will oblige us to be at Lansing, but during our absence, the business department of the office will be attended to by Mrs. L. B. ADAMS, who as Proprietor and Associate, has had charge of it for the past three years. The typographical department of the FARMER which we have heretofore attended to ourselves, will be under the charge of WILLIAM I. CHURCH, lately the proprietor of the CORONNA D. MOCRAT and who is foreman of the FARMER OFFICE.

## The Crops, and the Prospects.

From every quarter we hear of the excellent appearance of the wheat crop. Some who have compared it with what they had observed of the crop at the same time last year, report it as being much superior, though it is admitted that during the month of May and part of June, we have seldom had a promise of a crop superior to that of the spring of 1858, yet we have seldom had prospects more completely blasted. The effect of the promise of the crops at the present time, is to render the price of wheat and flour very steady. Were there the least indications of failure, we should see holders very firm in their demands for advanced prices. There are the months of May, June and July, or one fourth of the year which has to be passed, before the new crop will be available. It should be the duty of the farmer who has as yet his crop on hand, to watch the market closely. During that time, should there be indications of a short crop at any time, there will be strong effort made by speculators to realize something from the fears thus created, and then will be the time to sell. There will also occur, as a matter of course, some fluctuations in prices, owing to the growing scarcity of supply, which may give the seller a slight advantage; he should be prepared to seize upon it at once. Such chances to sell will not occur more than once or twice during

the term. Should the crop be harvested in good order, it will not surely require more than ordinary sagacity to predicate that the price of wheat and flour will be materially lessened.

The excitement of the wool dealers, and of the manufacturers has passed away, and we find that a gradual disposition to reduce the rates is general among buyers. As an instance of this, we note the fact that 9,000 pounds of wool was bought in this city in one lot last Monday, at 47 cents. This wool was of the same quality as that which had heretofore brought 48½ cents, and the sellers were the same who received the last named price but a week or two ago.

In regard to the prospects, we must caution our readers against feeling at all excited by rumors of decline in prices. During the past season the great mass of the wool had passed into the hands of capitalists who could hold or sell as they pleased. The revival of trade amongst the manufacturers created a demand; and of course the holders held out for all they could get, and the consequence was that prices went up, until they reached a point at which the consumers had to decide whether they would pay any more or step out of the market. This created a reaction, which is now being felt, but which, it must be borne in mind, will be both for the interest of manufacturers and of speculators to maintain from this time until the wool clip of 1859 is mostly sold, and hence there will be the usual reports of low prices, decline, stoppage of mills, inability of manufacturers to lay in stock at such rates, all of which the wool growers must have business tact to guard themselves against. Every thing at present points to the sheep being in very fine order. In response to some inquiries relative to the coming clip of wool, we have received the following letter from a large sheep growing region in Lenawee county:

Tecumseh, April 4, 1859.

Dear Sir:—In regard to the coming clip of wool, I think there are not as many sheep in this county as there were a year ago, though the sheep are in good condition, and will show an average clip. Owing to the reports in many of the agricultural papers last spring, in regard to the future prospects of the wool market, many farmers were induced to offer their sheep for sale, and sold them at low prices; most of them sold to Ohio men, to replenish the stock upon their farms.

It is judged by competent men, that the article on wool and its prospects, in the May number of the MICHIGAN FARMER, of 1858, saved at least \$30,000 to the State of Michigan. It is my opinion that articles upon the same subject, by other agricultural papers, occasioned a loss of at least \$15,000 to the State, on the sale of sheep within the last year.

J. V. DEPUTY.

## The State Agricultural Society.

In this number we continue the report of the proceedings of the Executive Committee of the State Agricultural Society. The publication will be continued until completed. The general feeling existing in relation to the next State fair, promises very favorable results, and we think preparations are on foot which will render it one of the grandest affairs of the kind. The throwing open the competition in all live stock to the breeders of other States, already promises to bring forward many most valuable animals, and to bring into the State visitors from every quarter. The premium list is now in course of preparation, and will appear in a short time.

## Kent County Ag. Society, and Plaster.

From the following letter received from the Secretary of the Kent County Agricultural Society, it will be seen that preparations are being made for the coming season that will tend to create quite an interest in that organization:

Grand Rapids, April 3, 1858.

MR. EDITOR—Dear Sir:—If you please you may say to the lovers of fine horses, that the Kent county Agricultural Society have a nice piece of ground, of thirty acres, on which is being fitted up a trotting track three fourths of a mile in length, which, together with other improvements, will make it perhaps the nicest fair ground in the State. And that the Society propose to hold a general Horse Show on the fifth of July next, which will afford a fine opportunity for our neighbors of the eastern counties to visit our new city, so lately brought out of the woods by the completion of the Detroit and Milwaukee Railway, also to show their nags and to carry off the honors and premiums, if they have got the finest horses.

By the way, speaking of the Detroit and Milwaukee Railway, although the southern counties are taking advantage of the less favorable facilities for getting plaster from here

by the opening of this road, I have not learned that the eastern counties are ordering much, or that they have any connected movement to get it forwarded cheaply to them. This I am somewhat surprised at, as I am confident that it can be afforded cheaper from here than from any other place, besides, I know it to be a better article than can be obtained from any other place. Yours respectfully,

L. S. SCRANTON,  
Sec'y Kent Co. Ag. Society.

## A Macomb County Horse.

About a month ago, Mr. R. R. Briggs, of Romeo, sent us the following notice for publication:

Michigan Beat the State of New York.—Robert R. Briggs, of Romeo, Michigan, took a three years old stud colt that he raised from his celebrated horse Berkshire Boy, to the New York State Fair, last fall and took the first premium on him of \$20 as a Blood Horse; he afterwards sold him in Syracuse, New York, for \$325, where he is to be kept for a stock horse.

We did not doubt that Mr. Briggs told the truth in the above notice of his horse, but we had the impression that he was mistaken about the horse Berkshire Boy being thorough-bred, and to make his colt thorough-bred, as it was necessary that the dam should also be thorough-bred; we supposed that there might also be a mistake in that, especially as the colt sold for only \$325, as a stock horse, and this we consider a most extraordinary low price for a thorough bred colt of three years old, with the qualities fitting him to be used as a stock horse. Meanwhile Mr. Briggs has forwarded a copy of a certificate received from B. P. Johnson, Esq., Secretary of the N. Y. State Agricultural Society, which is as follows:

N. Y. State A. S. R. Albany, Feb. 1, 1859.

I do hereby certify that J. J. Briggs, of Salina, New York, exhibited the best three years old stallion, Briggs' Hamiltonian, in the thorough-bred class of horses at the State Fair, Syracuse, October, 1858, at which Fair full pedigrees were exhibited with the horse, on side of sire and dam, and the first prize of \$20, was awarded.

B. P. JOHNSON, Cor. Sec'y.

Now we should be pleased to receive a copy of the correct pedigree of Berkshire Boy, which if sent in the first place, would have proved the thorough breeding of the horse more satisfactorily to us than any certificates could possibly do.

## Burning of Drain Tiles.

Draining tiles may be burnt in a clamp of bricks, by giving them a central place equally removed from the arches, the top, and the sides; but it is better to burn them in kilns made with solid brick walls. The kiln should be ten or twelve feet wide on the inside, and nearly square, or it may be longer if the amount of business warrants. In tile kilns the arches are set with brick, and also the whole bottom of the kiln as high as one or two courses above the arches. The tiles must always be set up endwise, and care should be taken to have them perfectly perpendicular. With pipe-tile, a small one is put inside all the larger ones. Horse-shoe tiles are set facing, so that they fit into each other. Two courses of bricks are usually burnt on the tiles at the top of the kiln, and these are covered when the heat is up, as where bricks only are burnt.

The heat is usually gradually to tiles than to bricks, for, being of a stronger clay than is commonly taken for bricks, they would otherwise crack to pieces. When the "water smoke" has all passed off, which takes some forty eight hours, the heat is brought up, and maintained for about forty-eight hours longer; this depends, however, on the fuel used, and very much on the special character of the clay, which latter is only learned by experience. The cooling should, also, be gradual; that is, the kiln should not be opened until it has had time to cool.—*Ohio Farmer.*

## Literary News.

Messrs. Leonard Scott & Co. have issued the February number of the North British Review, which contains a number of articles on Literature and Science, that will be read with much interest. Amongst these is a review of several French works on Algiers, and a translation that we published last week will give a taste of the quality of this review.

The New York Mercury has made an arrangement by which it is to be the only paper aside from the New York Tribune which will possess the writings of Bayard Taylor. It announces that he is about to publish a series of piquant sketches in it on the poetry and romance of foreign travel, "to be a perfect crystallization of all humor, wit, anecdote and incident on the sensation side of life abroad."

The Home.—We have often taken occasion to speak of the Home as one of the purest and best of family magazine published, and each successive number bears out the favorable opinions heretofore expressed. It is edited by Mrs. Victor, and published by Beadle and Adams, Buffalo, N. Y., at \$1.50 per year.

"The New and The Old, or California and India in Romantic Aspects," is the title of a volume by Dr. J. W. Palmer, Author of "Up and Down the Irrawaddi, or the Golden Dragon, in the press of Rudd and Carleton of New York. It abounds in the comic and tragic elements, as the Author found them in the events and scenes he witnessed in San Francisco in "Forty-Nine," and in India some years later. The work is freely and finely illus-

trated, and is dedicated to the "Autocrat of the Breakfast Table." The same publishers have in press a new and embellished edition of "Up and Down the Irrawaddi," which critics on both sides of the Atlantic have characterized as one of the most striking books of travel since Kinglake's "Eothen." Dr. Palmer's picturesque sketches in the Atlantic Monthly have frequently attracted the attention of the press. Both works are now printing.

Mr. Longman of London has just published a "Popular History of the United States, from the Discovery of the American Continent to the Present Time." By Mary Howitt. The British press severely criticize the work.

"We saw at Appleton's the other day, a mountain of books packed for the State of Ohio. The Superintendent of State Schools, who has charge of the purchase of school books for the whole State, and who makes it a point, so far as possible, to secure uniformity in the school books used throughout the State, had ordered eighty thousand volumes from this firm.—N. Y. Times.

Charles Dickens announces his new periodical to appear on the 30th of April, with the singular title, "All Round the Year." A new serial tale by Mr. Dickens will be commenced in the first number. The last number of *Household Words* will appear on the last Saturday in May.

Doings of Authors.—Richard Grant White is busy at his residence in Brooklyn correcting proofs of the coming volume of Shakespeare.—Donald G. Mitchell—the Marvellous—may be seen any day at the Astor Library, working at his "History of Venice." General George P. Morris is about leaving for Europe, as I understand. Washington Irving has completed his fifth volume of the Life of Washington. Partly from indisposition and partly from the time necessarily occupied on this, his magnum opus, he has confined himself to his residence at Sunnyside for some months.

H. C. Goodwin of Homer, New York, has written a "Pioneer History of Cortland County," which contains many interesting reminiscences of the early history of the Empire State.

The Conservatory Journal, is the name a newspaper issued by an association in Boston who propose to get up, (we were about to say by "spontaneous combustion") by individual contribution, a festival or exhibition, at which shall be displayed, every thing which relates to art or science, which contributions choose to send in. This Conservatory is to be the origin of a sort of public museum or grand conservatory where everything is to be placed for permanent exhibition or examination either as a gift or loan. The Journal is it expensive, and its price is \$1.00 per year, with an office at 16 Summer street, Boston.

A "History of Nicaragua, with its present, past and future" has been written by Peter F. Stout, Esq., the late Vice Consul, and it is published by John E. Potter, New York.

Ticknor & Field of Boston, have just published another volume of the DeQuincy writings, and also the poems of Motherwell, with a memoir of the author.

J. B. Lippincott & Co., announce a: in preparation a work on "Caloric its Mechanical, Chemical and Vital Agencies in the Phenomenon of Nature," by Samuel L. Metcalf of Transylvania University.

The Ladies' American Magazine.—This Magazine has sprung up from the ashes of the old favorite, *Graham*. It is adorned with fashion plates, gaily colored, and filled with stories and poetry about on a par with other monthlies of its class—some very good, some indifferent, and some without strength or character enough to bear either qualification.

## Foreign News.

There have been several arrivals during the past week, but there does not seem to have been any progress made in either coming to terms of peace, or in getting ready to declare war.

It has been determined to hold a Congress of the representatives of the several European powers at Paris, at which it is proposed to settle matters in dispute if possible, and especially all those on the Italian question. The *Moniteur* of the 22d announced the assent of the government to the Congress on Italian affairs, though saying that England, Austria, and Prussia had not yet officially replied. This caused a rise in funds, but a subsequent rumor that Austria had refused the proposition caused a reaction and fall in prices. The treaties of 1815 will be the starting point of the Congress; that is, it has been resolved not to unsettle the territorial arrangements made in that year. However this does not seem to quiet apprehensions, and from the tone of the feeling between Austria and Sardinia, the first step may be taken before the Congress can arrive at any definite understanding.

Sardinia proposed to make a senator out of one of the exiles so barbarously treated by the King of Naples; this man is named Peorio, and is to be first naturalized, and then placed in the Sardinian Parliament. He is said to have extraordinary abilities as a legislator.

The English parliament and ministry seem to be enjoying the almost breathless calm, before the struggle commences on the reform bill, which will overturn an administration, or retain its power with an accumulation of strength that will be difficult to overcome in the future. We expect to hear of the test vote by the next steamer.

The news from India seems to be satisfactory. The insurgents are taking advantage of the proclamation of amnesty, and are laying down their arms, and surrendering themselves to the authority of Lord Canning, the governor general.

Mexico has not yet settled which party is to be supreme. In his last encounters with the forces of the liberal or Juarez party, Miramon was defeated, and Vera Cruz is prepared for any attack that he may make.

The steamship Canada arrived at Halifax last Friday and brought mails from Liverpool to the 26th of March.

A congress of the powers interested in the settlement of the Italian question, has been called at Aix-la-Chapelle.

Piedmont and the other Italian States were likely to be admitted. It is reported that Prince Napoleon will represent France, and the Earl of Malmesbury England.

In consequence of the representations made by

Count Cavour, the French government consents that Piedmont and other Italian States shall be represented at the conference.

The Cabinets of London and St. Petersburg have agreed to the proposal of France to admit Piedmont, and there is hope that the Cabinet of Berlin will also consent, in which event Austria cannot disregard the wish of the other Powers.

According to the *New Gazette*, of Russia, the Emperor Napoleon has, on several occasions lately, recommended Count Cavour not to excite to war, assuring him that in no case would France go beyond the limits of her engagements.

In the Spanish Chamber of Deputies, a call had been made for the production of the papers relative to the negotiations between the United States, France and England, for the acquisition of Cuba by America. The Minister of Foreign Affairs replied that some deputies had expressed a desire to see the administration of Cuba improved, and the President of the United States had expressed the same wish. The opinion was, that Spain did not administer Cuba well, and that the United States, on account of their higher intelligence, had a moral duty to fulfill, which was to purchase the island. The government could not allow this idea about Cuba to remain uncontradicted. All governments had labored to improve the condition of that island, and the present Cabinet had been constantly occupied with measures calculated to give the inhabitants of that island the share they ought to possess in their internal administration without compromising the ties which unite them to the mother country. The best reply to the representations of certain orators of the United States was the prosperity of the Island of Cuba. That the question of the acquisition of the island of Cuba was impeding and menacing, could not be denied. Nevertheless, the government declared that it felt all the security which its great national resources were calculated to inspire. It had not, however, rendered insult for insult, as that would probably have aggravated the question. It had conducted itself with prudence and dignity, and had not applied for assistance to any other Power. If any other foreign Power had offered assistance, the government would have felt gratified, but it would not have accepted it, because it did not think any aid was necessary. As no diplomatic documents existed on the question, which happily was almost terminated, the government hoped M. Baidia would be satisfied with the explanation it had given and withdraw the motion.

## General News.

—The Mississippi is flooding portions of the lands on its banks above New Orleans. Several crossings being occasioned by the high state of the water.

—Horatio Field, the oldest and perhaps the largest liquor dealer in the County of Bristol, Mass., was taken the House of Correction at New Bedford, March 20, on three different indictments. His sentence was thirty days on each, making ninety days.

—There are numbers of the journeymen Trade men and also of the boatmen on the canals of New Jersey on a strike for increased rates of wages.

—A correspondent writing from Utah says: "Brigham Young has not been seen out half a dozen times during the last six months—probably not feeling safe, and fearing to meet the fate of his predecessor, Joe Smith, 'but from his own people.' It is said that he is preparing to depart for unknown regions, where he can enjoy his freedom and recruit his health, which is said to be declining. It is also currently rumored that several of the leading men are about to apostatize and preparing to leave, viz: Heber Kimball, William, Fenimore Little, Brigham's right-hand man, and Claudius Spencer. This is causing considerable excitement.

—The freight house of the Michigan Central Railroad Company, at Decatur was burned on the night of Thursday of the 7th instant.

—C. Woodruff, the editor of the *Ypsilanti Sentinel*, has been elevated by the voice of the people of the 6th ward of the city of Ypsilanti, to the dignity of being an alderman. We should like to know, if he means, after this, to permit his children to play with those of his neighbors the same as usual!

—D. A. McNair of Kalamazoo has been appointed one of the Trustees of the Insane Asylum of the State.

—The editor of the *Medina Gazette*, tells of a skunk being captured in a house by a dog, with the usual disgust to visitors. The terrible scent was neutralized by burning tar upon coals of fire, by which the air was purified as if by magic. If this kind of fumigation is a specific, it deserves to be known and put upon record.

—The match lately announced between Nicholas L. and Tar River, for \$10,000 a side is not to come off.

—The Mount Vernon Association have paid \$158,888 of the sum of \$200,000 required to secure the title to Mount Vernon, \$150,000 of which has been paid in a little more than three months. \$41,666, with the interest thereon, is yet to be raised, being the fourth instalment, due Feb. 22, 1863. Thirty States now legally compose the Association.

## Scientific Intelligence.

Agricultural Patents issued for the Week ending March 15, 1859.—Geo. A. Brown, Newfane, N. Y., machine for bending wood for felloes.

Alex. Dean, Jerusalem, N. Y., grinding apples.  
S. F. Dexter, Paris, N. Y., hanging well buckets.  
E. D. M. Edwards, Franklin, Mich., machines for folding wool.

Stephen Elliott, Washington, Ind., sugar mills, and process for extracting and assorting vegetable juices by pressure.

A. W. Hale, New Britain, Conn., a meat mincer.

J. C. Kuhn, Boonville, Ark., peach cutting and stoning apparatus.

J. L. Rowley, Angola, Ind., and G. W. Tolhurst, Liverpool, Ohio, washing machines.

James Smart, Mansfield, Ohio, apparatus for evaporating sugar juices.

S. W. Smith, Brooklyn, N. Y., machines for freezing cream.

D. E. Seal, Norwich, N. Y., device for raising water, whereby the bucket can be lowered, filled with water, raised and emptied, by merely turning a windlass.

James S. Upton, Battle Creek, Mich., horse power.

W. K. Wyckoff, Elton, Mis., bread making table, being a combination and arrangement of the flour chest, the table or molding board, the mixing tray and the closet.

T. E. Hunt, Indianapolis, Ind., Sugar Mills.

Agricultural Patents issued for the week ending March 22, 1859.—S. B. Batchelder, Lowell, N. Y., Seythe Snaths.

H. A. Doster, Bethlehem, Penn., Corn Huskers; an improvement on a corn husking device patented by S. A. Skinner in Nov. 1857.

J. T. Schuffenecker, Keokuk, Iowa, Brick Machine.

Charles Taylor, Little Falls N. Y., Cheese Press.

W. P. Valentine, Fond du Lac, Wis., Shingle Machine.

W. P. Goolman, Dublin, Ind., Mole plow, with device for producing or preventing lateral furrows in a drain by adjusting the presentation of the mole independently of the point of draft.



## The Household.

"She looketh well to the ways of her household, and eateth not the bread of idleness."—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

### A DREAM OF SPRING.

BY AUG. BLAUVELT.

In sleep I seemed to see the Spring  
Return from wandering, and stand  
With rosy ankles hid in snow,—  
A single blue-bird in her hand.

She stood and gazed o'er wood and field,  
As one who looks in by-gone years  
When desolation covers all;—  
And was it strange she gazed in tears?

But God beheld her grief, and bade  
The Winter set his sails of snow,  
And down the river out to sea,  
He caused his blessed wind to blow.

Before this wind, against his will,  
The Winter sailed and sailed afar  
To where the noble KANE did moor  
His ships beneath the polar star.

And still the wind of God did blow!  
The deeps of beauty burst their bound  
Within the South, and evermore  
Came rippling in without a sound.

And still the wind of God did blow!  
The streams,—as if an angel might  
Have lost its shining self in them,—  
Began to sing from lips of light.

And still the wind of God did blow!  
I saw the daffodils arise  
To thrones of gold, and violets  
Descend with glory from the skies.

And I beheld the orchard trees,  
That some were changed to clouds of snow,  
And some appeared an Horeb glow  
That caught from God its crimson glow.

No longer stood the Spring in tears;  
But kneel, as if her soul did soar,  
Above the birds, above the sun,  
In grateful praises evermore.

### How the Boys were Reconciled.

Maria Ellis was one of those girls, of which there are too many in the world, who think it is no matter how they look at home. She had always been used to working hard, but without any system whatever, so that really it seemed, as she said, that there was scarcely a minute's rest for her from one day's end to another. She followed in her mother's footsteps, and Ann was very thoughtlessly going on in the same way, without an idea that there was any other, till that last energetic appeal of their brother Richard, when he brought up the Brewer family in contrast with their own. She said nothing while he was speaking, but as soon as he and James had left the room, she drew her chair to the side of her sister's, and laying her hand on Maria's shoulder she said:

"Do sister, let us turn over a new leaf; let us see if we cannot make our home as pleasant to the boys as the Brewer girls do for their brothers. Richard is right enough in complaining, and I only wonder, when I come to think of it, how he has borne it so long so patiently."

"Borne what?" said Maria, in a sullen tone. "I'm sure he has not had half so much to bear as I have. But I shall soon be out of the way, and if Richard goes next spring, as he says he will, then you and James can turn over as many new leaves as you like. Perhaps you had better ask Betty Brewer to give you a few lessons."

Ann felt a little hurt by the way in which Maria said this, but the reference to her "being out of the way soon" softened any angry feelings that might have found vent in a sharp or petulant reply. Maria was to be married in a few weeks, and Ann looked forward with sorrow to the day that was to separate them, and leave her to superintend the work in the old homestead. The mother was disabled by rheumatism from getting about the house much, so that the management mostly fell upon the girls.

Maria and Ann had always been very shy of visiting the Brewer family, though often invited to do so. They always felt that there was something superior in the neatness and intelligence of their neighbors, and not knowing how else to account for it, they set it down as pride and vanity. But after that evening's talk with the boys and Maria, Ann pondered over the subject a good deal. She could not help acknowledging that Betty Brewer was the kindest tempered girl she knew; that they were all as hard working and industrious as she or Maria, and not above speaking to her in any company where they might chance to meet. She secretly resolved to cultivate a more intimate acquaintance with them, and find out, if she could, the secret of their having such a happy home and such contented brothers.

After Maria was married and settled in a home of her own, and Richard had gone out into the world to seek his fortune, James gradually began to notice a very different state of affairs in and around the old homestead. He noticed too, that Betty Brewer's smiling face was seen there much more fre-

quently than it used to be. Ann seemed to do all the work with far more ease than she and Maria had done it together. She was up earlier in the morning, the breakfast work, the churning and care of the milk were all out of the way in time to allow a good hour's work in the dooryard and garden before dinner time, and then after the dinner dishes were put away, with her clean dress and apron, her hair nicely combed and a happy smile on her face, James thought she looked quite as pretty as Betty Brewer. She and James managed between them to subscribe for two or three newspapers, one of them agricultural, and a good literary magazine, so that when the long winter evenings came round again, a much pleasanter group might have been seen in the old farmhouse kitchen than that introduced to our readers in the last number. Mr. Ellis was not much of a believer in book farming, but somehow he had become quite interested in the experiments James had been trying, as recommended in the FARMER; they had proved successful not only in filling his barns with crops and his purse with money, but they had given new life and ambition to his son James, and added a new interest to all the work connected with the farm, which made the old gentleman hope to keep this boy with him, or near him, even after he came of age. But as the months passed on, he could not help remembering James' former determination, and expected every day to hear it repeated. Instead of that, however, came more suggestions for improving the old farm; nothing was said about drudgery and being tired of digging. Very gradually James had introduced several new farming implements, and so managed as to make them pay for themselves in such a way that no one could complain of the cost. By the time the two years came round there was not in the country a greater enthusiast in farming, or one more attached to country life than James Ellis. Indeed, so in love with the old home was he, that, after Charles Brewer had persuaded Ann to keep house for him on his new farm, nothing would answer but Betty must take her place by James, to prevent him from being lonely; for, as to going out into the world to seek for happiness, that was not to be thought of, when all the resources of such a splendid farm as this were at his command. The parents were very willing to make an exchange of daughters, and Betty, like a good girl as she was, went to complete the charm that bound James Ellis to his country life, and which was begun through the influence of her lessons on systematic housekeeping to his sister Ann.

Richard visited the old neighborhood occasionally, and noticed the changes that were going on.

"How was it," said he to Ann one day, "that after I left home things took such a turn?—You do not seem like the same person you were, though Maria has not changed a particle, unless it is for the worse. I went to see her once since she moved away, and there was the same soiled dress and tumbled hair, and untied shoes, and her own little girl a picture of herself, only dressed and clean when company is expected."

"There lies the great secret of all our old troubles at home," said Ann. "We thought it made no difference how we looked at home, before the boys; at least Maria thought so, and as for me I followed her example without thinking anything about it, till that night you talked to us so seriously. Then I began to think of the consequences of such carelessness and study how to remedy it, but did not succeed in doing much till after Maria left home and I got Betty Brewer to advise and help me."

"Ah; so it was true that Betty was at the bottom of it? Well, I thought as much."

"Yes; the first lesson she taught me was to respect myself, which I never could do in an untidy dress; and the next thing was to introduce system into every department of the housework. This was no easy task, after our hap and chance, disorderly way of working, but by patience and perseverance I conquered, and soon found the great advantage of it in the amount of time it gave me for sewing, reading, garden work, or any little recreation I might want. You were right, Richard, in saying that such carelessness on the part of sisters makes many a boy sick of his home and anxious to get away. I believe that much more of the success and happiness of a farmer's life depends on their wives and daughters than they are usually aware of, and that if there were a good many more such girls in the world as Charlie Brewer's sisters, there would be a good many more contented farmer boys."

Richard thought so too. He had not been very successful in city life, and seeing how James was prospering under the new order of things, he concluded to settle down on the "north eighty" if he could persuade Susan

Brewer to aid him in planning the house he would need to build on it, and also to occupy it with him afterward. Susan did consent, and now old Mr. Ellis has no fears but what his declining years will be comforted by the presence of his sons, though he could never quite understand the secret of the change that came over his once discontented household.

### Home-Made and Bakers' Bread.

A week or two ago we published a paragraph on the subject of "Baker's bread," which was clipped from some one of our exchanges, not, however, with the remotest idea of touching the tender conscience of the anonymous "Detroit Baker," who took it so to heart in the *Tribune* of April 2d. It was given simply as a statement of facts which have been proved by chemical analysis.—Youmans, in his excellent work, "The Handbook of Household Science," says of the influence of foreign substances upon bread:

"It has been found that certain mineral substances influence in a remarkable degree the aspect and properties of bread, causing that made of inferior flour to resemble, in appearance, bread made from the best quality. Common salt produces this effect in a decided degree. It whitens the bread and causes it to absorb and retain a larger amount of water than the flour would otherwise hold. In consequence of this influence and under cover of the fact, that salt is a generally admitted element of diet, it is often introduced into bread more freely than is consistent with health.—Alum has exactly the same effect on bread as common salt, but in a much more marked degree. A small quantity of it will bring up a bad flour to the whiteness of the best sort, and will enable it to hold an extra dose of water. It is much used for this purpose, and the baker who employs it not only practices on the consumer a double imposition, but drugs him with a highly injurious mineral in the bargain. Mitchell detected in ten four-pound loaves 819 grains of alum, the quantity in each loaf ranging from 34 to 116 grains.—Sulphate of copper (blue vitriol), in exceedingly minute proportions, exerts a striking influence upon bread in the same manner as alum. Carbonate of magnesia has a similar effect, and its use in so large quantities as from 20 to 40 grains to the pound of flour has been recommended on scientific authority. This substance has been also recommended for correcting acidity in yeast, dough, &c., instead of soda, and because it is less powerfully alkaline. But from its difficultly soluble earthy nature, it tends to accumulate in the system in the highly objectionable shape of concretions and deposits."

We would not lift a pen or set a type against any honorable industrial trade or occupation, but do believe in warning people of frauds that may be practiced upon them, especially in so important an article of diet as bread, even at the risk of exciting a more powerful ebullition of temper and bad grammar than that exhibited by the *Tribune's* correspondent. Of the elements used in the Detroit bakeries we know nothing, and make no question of their wholesomeness. We have eaten our share of leathery sponges and sawdust compounds within the past six years, and for our own use would give more for one such loaf as that made by little Emma Smith and exhibited at the State Fair last fall, than we would for a baker's dozen of such as are usually carried about the streets in wagons and hand carts. There is a great deal of home-made bread in the city—real, sweet, tender, delicious bread; that we know by actual test, and are willing to risk the "working of the dough" if it once gets into the hands of a good housekeeper. Of the question of economy in using baker's or home-made bread, we have had no personal experience, but have been told by many who have tried both ways, that the advantage is greatly in favor of the latter, especially where families are able to buy a quantity of flour at a time, and some also add the enjoyment of eating it into the account, making the balance still more in its favor.—But, after all, bakers and bakeries are very useful in their way, and many of them send out excellent bread of its kind. It is not to be supposed that they all use alum and blue vitriol in their loaves any more than that all housewives uniformly bake heavy, sour dough. We were not a little surprised and amused at the manner in which that brief cautionary paragraph affected "a Detroit Baker," but should not have given it any farther notice, had we not received a letter from a "Detroit Housekeeper" taking up the subject and setting out the Detroit bakeries in no very enviable light. However, as this too is anonymous, we shall not publish it; besides, we have no quarrel with bakers, we know nothing of their combinations or modes of operation, either in the dough or out of it, and only claim the privilege of expressing our preference for good, sweet home-made bread, with heart and substance in it, let who will patronize the bakeries.

### Household Varieties.

#### AN ANSWER.

You ask a merrier strain of me,—  
The shepherd pipe of Arcady,  
The vintage hymn, the hunter's horn,  
The reaper's carol from the corn!

Ah! small the choice of him who sings  
What sound shall thrill the smitten strings!  
Fate holds and guides the hands of Art,  
And lips must answer to the heart.

In shadow now, and now in sun,  
As runs the life the song must run;  
But, glad or sad, to God's good end  
Doubt not the varying streams shall tend.

J. G. WHITTIER.

—Boston Transcript.

A correspondent of the *National Intelligencer* thus speaks of the carnival at Paris:

"The Imperial Family have enjoyed the carnival no less than simpler folk. The Empress and the Emperor were present, masked and cloaked in domino, at all the fancy balls, and on Monday the palace was the scene of the most magnificent of all. There were six hundred maskers; among them the Emperor, as a soldier of the time of Louis XV, and the Empress, in a Court robe of the same epoch, in red, black, and gold, loaded with diamonds; the Princess Clotilda as Mary Stuart. The revels lasted until six in the morning, two suppers having been served in the interval—one at two and the other at five. At one end of the banquet hall had been contrived a cascade of living water, which tumbling over rocks and mossy verdure, imparted the freshness of open day to the air. At midnight a chariot, drawn by allegorical maskers, passed into the dancing hall freighted with the blooming suite of Flora. They were the Countess Walewski, the Marchioness Cadore, the Countess Morny, and Madame de Labedoyere.—The car was filled with flowers. The Empress received her crowning bouquet with characteristic grace, and the train, passing through the crowd, dispensed their treasures with the largesse of nature's own. A second car bore Silenus in state; and a third a graceful band of grape gatherers, with gilded baskets of the freshest fruit. An endless series of like devices, yet of endless novelty appears to have made this ball one of really surpassing magnificence."

*Sewing Machines in Cuba.*—Until very lately sewing machines have been in very great discredit in Cuba, but now most respectable families, planters and tailors, have become purchasers of these amiable helps to the ladies, and the machines, with their gentle hum, may be heard in more than one of the fashionable tailoring establishments, and may be seen in many of the most respectable houses. Many of the planters, too, have each purchased one of the machines and sent it to their estates to be used in making up the clothing for the negroes, as well as that of the overseers, engineers and other white men employed. Yankee ingenuity is fast becoming an institution the wide world over.

*Death of Dr. Alcott.—Vegetarianism.*—Dr. Wm. A. Alcott, the well-known physiological writer and lecturer, died at his residence in Auburn, Mass., on the 29th of March. Dr. Alcott was a rigid vegetarian, and endeavored to instill his peculiar ideas into the mind of the community. Believing that the use of meats was contrary to the laws of health, he devoted his energies to the establishment of vegetarianism, and experimented freely upon his own person in order to establish his principle; abstained from the use of water for an entire year to prove that it was not an essential of life; lived wholly on fruits and vegetables for many years; traveled extensively, lectured through the North, and was a prolific contributor to periodical literature. Several works have appeared from his pen—among them the "Young Men's Guide," the "House I Live in," "Lectures on Life and Health," the "Young Wife," and the "Liberality of Health." Dr. Alcott was a native of Connecticut, and died in his 61st year.—*N. Y. Times.*

Dr. Alcott outlived his co-laborer, Dr. Graham, who died at the age of 50. Both of these worthy men digested away their lives in trying to secure a green old age. Neither was successful. Instances of longevity are quite as frequent among high livers as among vegetarians. Drs. Alcott and Graham stood perpetual guard over their stomachs, devoted fair talents and great industry to finding some better diet than that indicated in the sheet seen by St. Peter in his vision, forgot that a vegetable diet is impossible to the Equimaux and an animal diet almost equally impossible to dwellers under the Equator, forgot that God had given us an appetite for flesh and teeth specially adapted to its mastication, forgot that the only diet possible to the tender digestive organs of the infant is one purely animal. They lived wretched, dyspeptic lives, and died before the allotted period of man. Either would have been better off if he had never known that he had a stomach.—*Buffalo Commercial.*

*The Principal things for the whole use of man's life are water, fire, iron, salt, flour of wheat, honey, milk, and the milk of the grape, and oil and clothing.*—*Son of Sirach.*

*Pertinent Question.*—A Kentucky lawyer on circuit, was asked to dine with the Judge. At the table the Judge, as is his custom, asked a blessing, and shortly after, arose from his seat and took from the sideboard a bottle of old Bourbon, of which he invited his guest to partake, partaking freely himself, as is his custom. After dinner the lawyer said:

"Judge will you permit me to ask you a question?"

"Oh, certainly," replied the Judge "pray what is it?"

"I observed," said the lawyer, "that after you asked a blessing, you set on the bottle. Now I wish to know whether you are ashamed to ask a blessing on the liquor, or whether you thought it good enough without?"

The Judge took the case under advisement.

Mr. Genio C. Scott, the man-milliner of New York, states that the sidewalks of Broadway are swept, day and evening, "with a hundred thousand yards of costly silks." He remarks that the better the quality of the silk the better sweeper it makes—moire antique being found to be much better than taffetas and foulards de soie.—These sweeping machines, though rather costly, are, like their wearers, very simple, being merely, says Mr. Scott, "thirty yards of eight dollar silk, mounted on a reticulated frame of whalebone and steel."

### Suggestions about Food and Eating.

The most injurious food, of any in common use, is the *animal oils*, and articles cooked with them. On this subject, Dr. Pereira remarks:—"Fixed oil, or fat, is more difficult of digestion, and more obnoxious to the stomach, than any other alimentary principle. Indeed, in concealed forms, I believe it will be found to be the offending ingredient in nine-tenths of the dishes which disturb weak stomachs. Many dyspeptics who avoid fat meat, butter, and oil, unwittingly eat it in some concealed form. Liver, the yolk of eggs, and brains, such persons should eschew, as they abound in oily matter."

"The influence of heat on fatty substances effects chemical changes, whereby they are rendered more difficult of digestion, and more obnoxious to the stomach. Hence those culinary operations in which fat or oil is subjected to high temperatures, are objectionable."

"Fixed oils give off, while boiling, carbonic acid, an inflammable vapor, and acrid oil, called Acrolein, while the fatty acids of the oil are, in part, set free. It has always appeared to me that cooked butter proves more obnoxious to the stomach than cooked Olive oil. This I ascribe to the facility with which, under the influence of heat, the acrid, volatile acids of butter are set free. The fat of salt pork and bacon is less injurious to some dyspeptics than fresh animal fats. This must depend on some change effected by curing."

"In many dyspeptics, fat does not become properly chymified. It floats on the stomach in the form of oily pellicle, becoming odorous, and sometimes highly rancid, and in this state excites heartburn, disagreeable nausea, eructations, and sometimes vomiting. It appears to me, that the greater tendency which some oily substances have than others to disturb the stomach, depends on the greater facility with which they evolve volatile, fatty acids, which are for the most part exceedingly acrid and irritating. The distressing feelings excited in many dyspeptics by mutton fat, butter, and fish oils, are, in this way, readily accounted for. Butter contains no less than three volatile, fatty acids, namely—the butyric, capric, and caproic. Fats, by exposure to the air, become rancid, and in this state are exceedingly obnoxious to the digestive organs. Their injurious qualities depend on the presence of volatile acids, and in part also on non-acid substances."

These statements show the reasons why the fried food of all kinds is injurious. Fat is an unhealthful aliment, and when heated becomes still more so. This mode of cooking, then, should be given up by every housekeeper, who intends to take all reasonable means of preserving the health of her family. There are an abundance of other modes of preparing food, without resorting to one which involves danger, especially to children and invalids, whose powers of digestion are feeble.

The most common modes of preparing unhealthful food, are by frying food, and by furnishing bread that is heavy, or sour, or so newly baked, as to become clammy and indigestible when chewed. Though there are many stomachs that can for a long time take such food without trouble, it is always injurious to weak stomachs, and often renders a healthy stomach a weak one. A housekeeper that will always keep a supply of sweet, light bread on her table, and avoid oily dishes, oily cooking and condiments, will double the chances of good health for her family.

Minuteness of division is a great aid to easy digestion. For this reason food should be well chewed before swallowing, not only to divide it minutely, but to mix it with the saliva, which aids in digestion.

The cooking of food, in most cases, does not alter its nature; it only renders it more tender, and thus more easily divided and digested.

When a person is feverish and loathes food, it should never be given, as the stomach has not sufficient gastric juice to secure its digestion. The practice of tempting the sick by favorite articles, should therefore be avoided.

In regard to the selection of food, a housekeeper can have small excuse for over risking the health of her family by providing unhealthy food, or cooking it in an unhealthy manner. Innumerable dishes, and enough to furnish a new variety for every day in the year, can be made of food that is safe and healthful, and cooked in a healthful manner.

Avoid condiments, fats, and food cooked in fats, and always provide light and sweet yeast bread, is the rule which shuts out almost every thing that is pernicious to health, and leaves an immense variety from which to select what is both healthful and grateful to the palate.

There are some directions in regard to times and manner of taking food, that are given more at large, with the reasons for them, in the "Domestic Economy," but which will briefly be referred to, because so important.

Eating too fast is unhealthy, because the food is not properly masticated, or mixed with the saliva, nor has the stomach sufficient time



to perform its office on the last portion swallowed before another enters.

Eating too often is unhealthy, because it is weakening and injurious to mix fresh food with that which is partly digested, and because the stomach needs rest after the labor of digesting a meal. In grown persons four or five hours should intervene between each meal. Children who are growing fast, need a luncheon of simple bread between meals.

Eating too much is unhealthy, because the stomach can properly digest only that amount which is needed to nourish the system. The rest is thrown off undigested, or crowded into parts of the system where it is injurious.

Eating food when too hot is injurious, because it stimulates too much, provokes the appetite too much, and often is indigestible.

Badly cooked food is unhealthy, because it is indigestible, and in other ways injurious.

Excessive fatigue weakens the power of digestion, and in such cases, a meal should be delayed till a little rest is gained.

Bathing should never follow a meal, as it withdraws the blood and nervous vigor demanded for digestion, from the stomach to the skin.

Violent exercise should not follow a full meal, as that also withdraws the blood and nervous energies from the stomach to the muscles.

Water, and other drinks, should never be taken in large quantities, either with, or immediately after a meal, as they dilute the gastric juice, and tend to prevent perfect digestion. But it is proper to drink a moderate quantity of liquid while eating.

Where there is a strong constitution and much exercise in the open air, children and adults may sometimes violate these and all other laws of health, and yet remain strong and well.

But all, and especially those who have delicate constitutions, and are deprived of fresh air and exercise, will have health and strength increased and prolonged by attending to these rules.—Miss Beecher.

#### Household Recipes.

##### Chicken Pie.

Joint and boil two chickens in salted water, just enough to cover them, and simmer slowly for half an hour. Line a dish with raised or potato crust, then put the chicken in thin layers, with thin slices of broiled pork, butter, the size of a goose egg, cut in small pieces. Put in enough of liquor, in which the meat was boiled, to reach the surface, salt and pepper each layer, dredge in a little flour, and cover all with a light, thick crust. Ornament the top with the crust, and bake about one hour in a hot oven. Make a small slit in the centre of the crust. If it begins to scorch, lay a paper over a short time.

##### Fried Veal Cutlets.

Take half a pint of milk, add a well beaten egg, and flour enough to make a batter. Fry the veal brown in some sweet lard, then dip it in the batter and fry again till brown. Drop in some spoonfuls of batter, to fry after the veal is taken up, and put them on the top of the veal. Then put a little thin flour paste into the gravy, adding salt and pepper, and after one boil, pour it over the whole. The veal must be cut quite thin, and it should cook nearly an hour in the whole.

##### Fricassee Chickens.

Wash the chickens and divide them into pieces, put them in a pot, or stew-pan, with several slices of salt ham, or pork, and sprinkle each layer with salt and pepper; cover them with water, and let them simmer till tender, keeping them covered.—Then take them up, and mix with the gravy a piece of butter the size of a hen's egg, and a paste made of two spoonfuls of flour wet up with the gravy. Put back the chickens and let them stew five minutes. Then spread crackers, or toasted bread, on platter, put the chickens on it, and pour the gravy over.

In case it is wished to have them browned, take them out when nearly cooked and fry them in butter till brown, or pour off all the liquid and fry them in the pot.

#### For our Young Friends.

##### Enigma.

In King Henry's reign, two brothers known to fame,  
With hearts heroic and brave,  
Crossed Atlantic's broad wave  
And planted the flag-staff on our domain.

If the air name of the brothers be reversed,  
And a partnership placed in the rear;  
A filthy old tyrant will appear,  
Who has made many slaves since Adam the first.

Plymouth, 11th April, 1859.

##### Miscellaneous Enigma.

I am composed of twenty-two letters.  
My 2, 3, 7, 16, 15, is a dog's name.  
My 10, 8, 6, is part of the face.  
My 12, 11, 9, is a lady's name.  
My 11, 8, 11, 4, 6, is my fellow's name.  
My 22, 16, 6, is part of the body.  
My 7, 16, 9, 1, plus salt, is a remedy for the poll evil.  
My 17, 12, 10, 6, 4, 9, 5, is good to sweeten our temper.  
My 6, 15, 12, 18, is a name of a lake.  
My 9, 19, 3, 7, is a young man's name.  
My 8, 16, 8, 18, is a kind of flower.  
My 3, 16, 12, 18, 21, is a constellation in the heavens.  
My 10, 12, 20, 29, is bed time for all honest folks.

My 4, 8, 16, 11, 10, 12, 4, plus H. plus 22, is to you all.

My whole is a striking feature of the present age.

Answer to Charade of April 24.  
My first—LA, to look, see or behold.  
My next—TENT, a kind of red wine.  
My whole—LATENT, concealed or hidden.

**GROVER & BAKER'S**  
CELEBRATED  
**FAMILY SEWING MACHINES,**  
495 Broadway, New York.  
143 Jefferson Avenue, Detroit.  
58 West Fourth Street, Cincinnati.  
**A NEW STYLE—PRICE \$50.**

This machine sews from two spools, as purchased from the store, requiring no winding of thread; it fills, feeds, gathers and stitches in a superior style, finishing each seam by its own operation, without recourse to the hand-needle, as is required by other machines. It will do better and cheaper sewing than a seamstress can, even if she works for one cent an hour. Send for a Circular.

**WHEELER & WILSON'S**  
IMPROVED  
**SEWING MACHINES.**  
PRICES GREATLY REDUCED.  
Particular attention is invited to the  
**NEW STYLE AT \$50.00.**  
SEND FOR A CIRCULAR.

**L. D. & H. C. GRIGGS,**  
GENERAL AGENTS for Michigan and Western New York.  
145 Jefferson Avenue, Detroit.

**GOOD NEWS.**—A reduction in the prices of Sewing Machines is announced in our advertising columns.—Their utility is established beyond question, and at the present prices we see no reason why they should not be found, as they ought to be, in every household. Several varieties are manufactured, adapted to various purposes. So far as public opinion has been formed and uttered, the preference is emphatically accorded to the Wheeler and Wilson machine for family use, and for manufactures in the same range of purpose and material. During the present autumn the trials have been numerous, and all the patents of any pretension have brought fairly into competition. In every case, the Wheeler & Wilson machine has won the highest premium. We may instance the State Fair of New York, New Jersey, Pennsylvania, Kentucky, Illinois, Wisconsin, Virginia, Michigan, Indiana, Mississippi, Missouri and California, and the Fairs in Cincinnati, Chicago, St. Louis, Baltimore, Richmond, and San Francisco. At the Fair of the St. Louis Mechanical Association, the Examining Committee composed of twenty-five Ladies of the highest social standing, who, without a dissenting voice, awarded for the Wheeler & Wilson Machine, the highest only premium, a Silver Pitcher, valued at \$75. If these facts do not establish a reputation, we know not what can.—*Christian Advocate and Journal.*

**1856.**  
**THE CLEVELAND WOOL DEPOT**

Has been established over six years, and it affords the subscribers much satisfaction to know that its merits are fully appreciated by those who have patronized it during this entire time. The change made one year ago in confining its sales to cash, has met with universal favor. It is proposed to continue the cash system, and future consignors may rely upon the same prompt return which characterized our last year's business. Perhaps not quite as high figures can be obtained by adhering strictly to cash, but it will insure prompt returns, and hundreds have assured us that they obtained from \$10 to \$20 cents a pound more through the Depot than they were offered last Spring from other sources, and we believe this has been true every year excepting a few of the consignments during the Fall of 1857. It should, therefore, no longer remain a question in the minds of

**Wool Growers or Merchants**  
having Wool to dispose of, that this system of closely classifying and handling wool will prove the very best method of selling wool which has yet been adopted. Sacks will be sent as heretofore to those who may order.

To those wishing to realize on their wool as soon as shown, advances will be made

**AMOUNTING TO THE VALUE OF THE WOOL,**  
PROVIDING THE CONSIGNORS WILL ALLOW THEM OFFERED FOR SALE AT THE FIRST OR EARLY PRICES.

Cash advances will be made on receipt of Wool or Shipping Bill, as formerly.  
We trust that the liberal Cash advances, the long experience in the Depot business, and established reputation of our grades among manufacturers, with undivided attention to our consignors' interests, will insure us a liberal patronage.  
**GOODALE & CO.,**  
16-2w  
Cleveland, Ohio.

**WEEDING TREES FOR LAWNS,** Cemeteries, &c. Some very fine extra sized Weeping Trees, 10 to 15 feet high such as, English Weeping Ash, Weeping Mountain Ash, a very beautiful and extremely pendulous tree; Scamptown Weeping Elm, a splendid variety with extremely large foliage, by far the finest Weeping Elm grown; Weeping Scotch and English Elms, Oaks, Limes, Popular Willows, &c.  
Prices from \$1 to \$2 each the latter very large and fine trees; \$9 to \$18 a dozen.  
**JAMES DOUGALL,**  
Windsor Nurseries, Windsor, C. W.  
April 1st, 1859.

**DWARF PEARS** On the Angers Quince, a very fine stock from one to four years old, the latter covered with blossom buds. Comprising 300 varieties including all that is new and rare.  
Prices from \$2 to \$6 a dozen or \$20 to \$35 per 100, according to size and age.  
**Dwarf Apples** On the Doune Stock for Gardens at from \$3 to \$4 a dozen, the latter bearing trees.  
**JAMES DOUGALL,**  
Windsor Nurseries, C. W.  
15-2w

**NEW AND FINE GRAPES.**

**NATIVE GRAPES,** Anna, Concord, Delaware, Diana, To Kalen and Rebecca, price from 50 cents each, according to variety and size.  
**Foreign Grapes,** Callabasse, Chasselas de Florence, Chasselas Blanc Royale, Imperial, Foc Laboulac, St. Louis, &c., these are very early and quite new, the fruit of some having been exhibited in England for the first time last year, while the others have not been yet fruited there. Price \$1 each, together with nearly all the fine older varieties at 50 cents each or \$4.50 a dozen.  
**JAMES DOUGALL,**  
Windsor Nurseries, C. W., April 1st, 1859.

**PEACH TREES.** A few thousand good two year old trees for sale by **G. YOUNG & PINNEY,**  
18-4w  
Plymouth, Mich.

**FRUIT TREES FOR SALE!**

**125,000 APPLE TREES**  
OF THE  
**CHOICE VARIETIES.**

All thrifty vigorous trees. We sold from this Nursery last year to many Farmers and Fruit Cultivators, and have had no complaint of the trees dying. In every case where we have had an opportunity to examine them, they have lived and grown well, and of those we have heard from the testimony is the same. Also,  
**Pear, Peach, Cherry, Plum, Quince,**  
AND OTHER VARIETIES,  
For sale by  
**BLOSS & CO.,**  
No. 22 Monroe Avenue, Detroit.

**SEEDS, SEEDS!**

**FRESH SHAKER SEEDS,** OF LAST YEARS growth and warranted. Also, Spring Wheat, Sweet Potatoes of several kinds, King Philip, Flour, Duttons Eight Eared and Sweet Corn, Timothy, Clover, Bayley Seed, &c. &c.  
**PENFIELD'S,**  
103 Woodward Ave., Detroit.

**1859. SUMMER ARRANGEMENT. 1859.**

**MICHIGAN SOUTHERN**  
AND  
**DETROIT, MONROE AND TOLEDO**  
**RAIL ROAD.**

On and after Monday, April 4th, 1859, Passenger Train will run as follows:  
Leave Detroit for Adrian and Chicago at 7.00 A.M., and 5.30 P.M.  
Arriving at Adrian at 9.57 A.M. and 10.30 P.M.  
Chicago at 7.00 P.M. and 7.00 A.M.  
For Monroe, Toledo, Cleveland, Cincinnati, Buffalo and New York: Leaves Detroit at 7.00 A.M. and 1.00 P.M.  
Arrives at Monroe at 8.45 A.M. and 8.20 P.M.  
Toledo at 9.35 A.M. and 4.30 P.M.  
Leaves Toledo at 10.10 A.M. and 5.30 P.M.  
Arrives at Cleveland at 9.00 A.M. and 3.55 P.M.  
From Chicago for Detroit:  
Leaves Chicago at 6.00 A.M. 8.00 A.M. and 8.00 P.M.  
From Cleveland for Detroit:  
Leaves Cleveland at 4.00 A.M., 11.25 A.M., and 5.30 P.M.  
Toledo at 5.50 A.M., 4.10 P.M.  
Trains arrive at Detroit from Chicago, Adrian, Cleveland and Toledo at 11.20 A.M., 12.40 P.M. and 7.15 P.M.

**CONNECTIONS:**  
The 7.00 A.M. Train from Detroit makes direct connection at Adrian, with Express Train for Chicago and Jackson. Arriving in Chicago at 7.00 A.M., in time to connect with the Trains of all Roads running west of Chicago; and at Toledo with Express Train for Cleveland—arriving in Cleveland at 2.45 P.M., making direct connection with Express Train for Buffalo and New York; arriving in New York at 1.20 P.M., and with the Express Train for Pittsburgh.  
The 1.00 P.M. Train connects at Toledo with Express Train for Cleveland, Buffalo, and New York—arriving in Cleveland at 9.30 P.M. and New York at 9.30 P.M., next evening, and with Express Train for Pittsburgh.  
The 5.30 P.M. Train, connects at Adrian with Express Train for Chicago—arriving in Chicago at 7.00 A.M.  
The 4.00 A.M. Train from Cleveland, and 8.50 A.M. Train from Toledo, arrives in Detroit at 12.40 P.M.  
Making direct connection at Detroit with Express Train on Great Western Railway for Suspension Bridge and Niagara Falls.  
The 11.25 A.M. Train from Cleveland; the 6 A.M. Train from Chicago via Adrian, the 8 A.M. Train over Air Line via Toledo and 4.10 P.M. Train from Toledo, makes direct connection at Detroit with Express Train on Great Western Railway for Suspension Bridge and Niagara Falls, leaving Detroit at 7.45 P.M.  
Direct connections are also made, at Detroit with the Detroit and Milwaukee Railway.  
Sleeping Cars accompany the Night Trains between Detroit and Chicago.  
No change of Cars between Detroit, Adrian and Chicago.

**JNO. D. CAMPBELL,**  
SUPERINTENDENT.  
S. P. KNIGHT, Agent, Detroit.

**FARMERS OF MICHIGAN!**  
Who want to purchase  
**AGRICULTURAL TOOLS**  
AND  
**IMPLEMENTS!**

As you would secure your own interests, get the articles manufactured by  
**WATERS, LATHROP & MCNAUGHTON,**  
In the City of Jackson.

**Waters, Lathrop & McNaughton**  
Make the  
**MOST DESIRABLE KINDS**  
of Farming Utensils, and the  
**BEST OF THE KIND.**  
Among their manufactured articles are found the best  
**Cultivators, Harrows,**  
and  
**POTATO DIGGERS**  
Of different patterns, also,  
**PLOWS AND ROAD SCRAPERS,**  
**STORE TRUCKS**  
For Stores and Granaries. Every Storekeeper and every large Farmer wants one.

**The Best Harvesters**  
In the country, and  
**THRESHING MACHINES.**  
With Separators or without them. Their Harvesters are  
**Allen's Combined Mower and Reaper.**  
AND  
**Allen's Mowing Machine.**  
(R. L. Allen's patent, New York, with his very latest improvements.) The  
**Buckeye Mower and Reaper.**  
AND  
**Aultman & Miller's Mowing Machine.**  
(C. Aultman, of Canton, Ohio.)

These are undoubtedly the best two Harvesters and Mowing Machines for either rough or smooth ground, wet marsh or dry meadow, and for standing or fallen grain. The farmer who uses either of these need desire nothing more in that line. Also a superior  
**REVOLVING HORSE RAKE,**  
With sixteen teeth, being the greatest labor saver known on any farm. The very best  
**Grain Cradles, Scythes, Scythe Snaths,**  
**Horse Rakes, Gigs Rakes,**  
**Hand Rakes, &c.,**  
Including  
**THE CELEBRATED MORGAN CRADLE & SCYTHE**  
**THE CELEBRATED MULLEY SCYTHE SNATH,**  
**THE "EXCELSIOR" SCYTHE SNATH,**  
**BUSH SNATHS, WITH TWO HEEL RINGS,**  
**AN IMPROVED HORSE POWER,**  
For one or two horses, and a perfect charm of a  
**DOG POWER.**  
For Churning, Washing, &c.

**Water's Superior Grass Scythe.**  
This Scythe, of rolled and polished Steel, is beyond a doubt the BEST PLUS ULTRA in the line of a Grass Scythe. No mowman who has ever used one, would give it for one of any other kind.

**GOOD AND CHEAP STRAW CUTTERS.**  
All the desirable varieties of SHOVELS, SPADES, SCOOPS, HOES, TOOLS, RAKES, POTATO HOOKS, AND FARMING AND GARDEN TOOLS generally, and all sorts of TOOL HANDLES.  
**WATERS, LATHROP & MCNAUGHTON,**  
15-13w  
Jackson, Mich.

**SEEDS! SEEDS! SEEDS!**  
THE Subscribers have on hand and for sale at wholesale and retail, a large and complete assortment of Garden, Flower and Field Seeds, obtained from the most reliable sources, both in this country and Europe. Of the growth of 1858, good and true to their marks. Farmers, gardeners and others in want of Seeds of almost any kind, can obtain from us those that will give entire satisfaction.  
Catalogues may be had on application at our store, 106 Woodward Avenue, or by mail.  
**M. T. GARDNER & CO., Seedsmen,**  
Detroit, Feb. 24, 1859.

**LAWTON BLACKBERRIES FOR SALE**  
At the rate of \$2.00 per dozen, or \$10.00 per hundred by  
**HUBBARD & DAVIS,**  
7-3m  
Fort Street, Detroit.

**SEED OATS & POTATOES.** Black Oats for Seed and Carter, Early June and Mexican Potatoes. For sale at the American Seed Store.  
**J. BLOSS & CO.,**  
13-4w  
No. 22 Monroe Avenue, Detroit.

**BARREY'S SEEDS OF HORSE-TAILING**  
Will be a fine Portraiture Price 50 cents and sent free of postage, send orders to  
**O. A. ROEBACH, Jr.,**  
15-12w  
346 and 348 Broadway, New York.

**THE IMPLEMENT FOR GARDENS.**

**THE HAND SCARIFIER.**

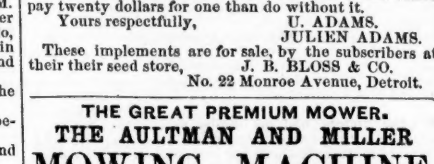


**PRICE \$3.50.**  
We offer for sale the Hand Scarifier, the most desirable and useful implement for gardens, of any that has been invented, and the most perfect labor saver. Read the testimony of those who have tried it last season:  
—ROCHESTER, OAKLAND, CO., MICH., FEB., 1859.  
Messrs. Bloss & Adams:  
You cannot recommend too highly your Hand Scarifier. It is an invaluable machine for cultivating all root crops sown in drills. It works easy, a boy of 12 years old can use it and do more work than five men can with hoes in the same time. It pulverizes the surface of the ground and kills all the weeds. I had one the last season and speak from experience, a person having a quarter of an acre of garden to cultivate should not be without one and no farmer or gardener after using one a single hour would be without one for four times its cost.  
**W. JENNINGS.**

—ROCHESTER, OAKLAND, CO., MICH., FEB., 1859.  
Messrs. Bloss & Adams:  
In answer to your inquiry, "How we like the Hand Scarifier," we reply that we are highly pleased with it. It is the greatest labor saving machine for its cost that we have ever used, or seen. For all root crops sown in drills it is invaluable. One man with this machine can do more work in one day than five men with hoes, and do it better. We have used it two seasons and would rather pay twenty dollars for one than do without it.  
Yours respectfully,  
**JULIEN ADAMS.**

These implements are for sale, by the subscribers at their retail store,  
**J. B. BLOSS & CO.,**  
No. 22 Monroe Avenue, Detroit.

**THE GREAT PREMIER MOWER.**  
**THE AULTMAN AND MILLER**  
**MOWING MACHINE.**  
**BUGEYE MOWER.**  
**AULTMAN & MILLER'S**  
**PATENT.**



**PATENTED BY C. AULTMAN & L. MILLER.**  
To which was awarded the First Premium,  
a Gold Medal and Diploma, at the  
Great National Trial at  
Syracuse, N. Y.,  
July, 1857.

**MANUFACTURED BY**  
**C. AULTMAN & CO.,**  
Canton, Stark County, Ohio.

After toiling and experimenting for many years, we have finally succeeded in getting up a machine that is perfectly adapted to cut both Grain and Grass. The public are hereby advised that the machine has been manufacturing a Mowing Machine that has been unrivaled in any market.

But the Farmer wants a machine that will cut both grain and grass, provided he can get a combined machine that will mow as well as a machine made expressly for mowing; and hence as well as a machine made expressly for reaping. This we furnish in our *New Machine*.

First.—We have a perfect Mower, having several advantages over all other Mowers, and no disadvantages, which will be readily seen by examining some of its points of excellence.

Second.—We have a perfect Reaper, which has all the advantages of a single machine, and the only true way of delivering the grain at the side of the machine.

We have a cutter bar and platform for cutting grain, independent of the Mower, so that in changing the Mower into a Reaper, we just uncouple the cutter bar at the hinge and couple the Reaper platform which renders the machine complete for cutting Grain.

In having two cutter bars, one for grass and the other for grain, each is perfectly adapted for doing the work it is designed to do, thus avoiding the great difficulty heretofore existing in combined machines, in having the cutter bar either too long for grass or too short for grain.

This machine has been thoroughly tried, both in grass and grain, having had a number in use the past harvest.

The following are some of its points of excellence as a Mower:

1st. It has not one pound of side draft.  
2d. It has no more weight on the tongue, or horses' neck, than a wagon.  
3d. Its draft is only 275 pounds—so reported by the Committee at the Ohio State Fair, 1857.  
4th. It runs on two wheels which serve as drivers.  
5th. It has an adjustable cutter bar and accommodates itself to an uneven surface of the ground.  
6th. The cutter bar is in front of the driving wheels and the seat in the rear. Thus enabling the driver to see the operation of the cutter, and to keep it in line with his driving. Also, avoiding all danger of falling into the knives.

7th. The driving wheels have no cogs on them, but drive the gearing by means of pulleys and ratchets.  
8th. By means of pulleys and ratchets, the knives cause to vibrate in backing the machine.  
9th. The driver, while in his seat, can see every bolt, box, and all the gearing when the machine is in motion.

10th. The gearing is all permanently arranged in the centre of the frame, distant from the driving wheels, thus avoiding all tendency of its being clogged up with mud or dirt thrown up by the drivers.  
11th. The cutter bar being attached to the machine by means of hinges, can be folded up on top of the machine without removing the connecting rod, knife or track cleaner.

12th. The pulleys on the driving wheels can readily be thrown out of gear, and by folding the cutter bar as above stated, renders the machine as portable as a common cart.

13th. There is a wheel on the shoe near the gearing in front of the cutter bar, thus avoiding all tendency of clogging at the rear shoe, in passing over cut grass.

14th. The off shoe is only 3 1/2 inches wide, and the last knife cuts no more than any other, therefore leaving no ridge or high stubble at the end of each swath.

15th. The cutter bar can be raised or lowered by means of an adjustable steel spring shoe at off end, and a slot in the rear shoe where the wheel is attached.

16th. There are no nuts or screws at the connecting rod, which are always liable to cause more or less trouble by jerking loose, but use a gib with a spring pull and a ratchet key, thereby avoiding all possible chance of shaking loose.

**Points of excellence as a Reaper:**  
1st. It has all the advantages that the Mower has in the gearing, connecting rod, and draft for the horses.  
2d. The grain is delivered at the side, so that a whole field can be cut without taking any of it up.  
3d. The driver's seat is the same as on the Mower, affording him a free view of the operations of the machine.  
4th. The raker stands at the rear of the platform, which is the best position for delivering the grain.

5th. The raker with one motion, throws the grain to the side, then delivers it in the rear; thus avoiding the difficulty of dragging the grain from one gavel to another.  
6th. The platform can readily be raised or lowered to suit all kinds of grain or ground, by means of two screws, at near side, and slot at off side, when off platform.

N. STEELE is the travelling agent, and is now soliciting orders in this State.

All letters of inquiry, or requesting further information may be addressed to  
**E. ARNOLD,**  
Dexter, General Agent, or  
**BLOSS & CO., Special Agents, Detroit.**

**TOBACCO SEED.** A small quantity of the Connecticut Seed Leaf variety for sale, 40 cts per oz., including postage.  
**G. YOUNG & PINNEY,**  
18-4w  
Plymouth, Mich.

**50,000 PAPERS**  
OF  
**FLOWER SEEDS.**

A very large assortment of Flower Seeds, annual and perennial, of the choicest varieties, put up in papers, with printed descriptions, for sale at five cents each, or at fifty cents per dozen papers. Catalogues furnished free. Orders, accompanied with the cash, for one dozen, or more papers selected by the purchaser will be forwarded by mail, postage prepaid, by  
**M. T. GARDNER & CO., Seedsmen,**  
166 Woodward Avenue, Detroit.  
February 24, 1859.

**WINDSOR NURSERIES, C. W.**

FOR SALE a large and well grown stock of nearly everything in the NURSERY LINE, such as  
**Fruit Trees**—Both Standard and Dwarf, of all sorts except Peaches—Quinces, Grape Vines, Native and Foreign, of all the new and rare sorts, Currants, Gooseberries, Mulberries, Walnuts, Blackberries, Raspberries, Strawberries, Rhubarb, &c.  
**Ornamental Trees and Shrubs,** Deciduous and Evergreen, splendid extra sized Weeping Trees for Lawns, Roses, Tree and Herbaceous Pionies, Tulips, Hyacinths and other bulbous flower roots in their season, an unrivaled collection.

The whole of the stock has been propagated and grown in the WINDSOR NURSERIES and is warranted thrifty and true to name.

Orders will be promptly attended to, carefully packed and delivered free as directed in Detroit, after which they will be at purchasers risk.

Catalogues sent on application addressed to  
**JAMES DOUGALL, Box 131 Detroit P. O.**  
Windsor, C. W., April 1st, 1859.

**PUBLIC SALE**  
OF  
**SHORT HORNS.**

I WILL offer at Auction, at Circleville, Ohio, on Wednesday next June 15th, about 60 head of Short Horns, about half of which are Herd Book cattle, the remainder high 3/4, or full blood of imported stock.  
A credit of 12 months given for approved Notes at interest.  
13-4w  
**HARNES RENICK.**

**TREES AND PLANTS.**

**WM. ADAIR** offers for sale a general assortment of Fruit and Ornamental trees, Flowering Shrubs, Roses, Green House Plants, Blackberries, Raspberries, Strawberries, Grapevines, including the Concord, Diana, Rebecca, Delaware and all of the most popular Foreign varieties for cultivation under glass. Wilson's Albany, Peabody's Seedling, Jenny Lind, Sir Harry, Hooker, Scott's Seedling, Victoria and several other new varieties of Strawberries.

**Verbenas,** a first rate assortment comprising the novelties of last season.  
**Dahlias,** a splendid collection, which as usual obtained the first prize for the best collection and the best twelve specimens at the last State Fair.

**Norway Spruce,** Balsam Fir, Scotch and Austrian Pine and other Evergreens can be furnished in quantity, and in short, nearly everything kept in a nursery, at as low rates as they can be procured in the State.

**HUBBARD SQUASH,**  
50 seeds will be sent by mail for 15 cents in stamps.  
Address  
**WM. ADAIR,**  
12-5w  
Detroit.

**NALL, DUNCKLEE & CO.**  
Would invite the attention of the Farmers of Michigan, when visiting Detroit, to their extra  
**SPRING STOCK**  
OF  
**CARPETS,**  
FOREIGN AND DOMESTIC  
**DRY GOODS,**

Fancy Silks, Black Silks,  
Organdy Robes, Pohlen Robes,  
Bayadere Foulards, Bareges,  
Printed Robes, French Prints,  
Laces, Embroideries,  
White Goods, Kid Gloves.

Hosiery, Sheetings, Cloths,  
Flannels, Ticks, Printed Lawns,  
Cambrics, Gingham,  
Muslin de Laines,  
Stella Shawls, Broche Shawls.

**OUR CARPET AND FURNISHING STOCK**  
Is complete in all its branches.  
Tapestry Velvet Carpet,  
Tapestry Brussels do,  
Imperial Three Ply,  
Extra Super Ingrain,  
Superfine do, Fine Ingrain do,  
Cotton and Wool do.

Silk Damask, Worsted do,  
Morreans, Druggets, Green Balizes,  
Cocoon Matting, Plain and Check Matting,  
Gilt Shade, Common do,



# MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

Publication Office, 130 Jefferson Avenue.  
DETROIT, MICHIGAN.

S. FOLSON,  
WOOL DEALER,  
90 Woodward Avenue,  
DETROIT, MICHIGAN.

## THE MARKETS.

**Flour and Meal.**  
Some one in the New York Journal of Commerce undertook the task of estimating the quantities of flour in store in New York, and made out there was one million three hundred and forty three thousand barrels; whereas the flour dealers became somewhat indignant, and made a count on their own responsibility, and the result was that 465,774 barrels were found. Still, this is a very large amount to be in store in that city at this season of the year, before canal navigation is opened. The fact proves that the great ease in monetary affairs at the east has enabled holders to keep from pressing their stock into the market, and thus prices have been maintained. But what will be the final result it is easy to foresee, when they find the low rates of freight, and the stock on hand west, which though light, is still sufficient to permit a portion to go forward, adding to the large stock on hand.

The Chicago Commercial Express notes that the general tendency of the market is downward, wheat being worth less by 2 to 3 cents in the different grades, and corn having declined from 73 and 75 to 68 and 70. In this market the receipts of breadstuffs continue to be light in quantity. For the last week but 4,361 bushels of wheat, 3,656 of corn, 2,222 of oats. There was, however, 7,706 bbls of flour, which is a pretty fair amount for a State that is not supposed to have any wheat left in it. Within the past two days flour has been quoted at a decline of 25 cents per bbl, good extra selling at \$6.50, that had heretofore sold at \$6.75, and the more inferior kinds ranging from \$5.25 to \$6.

Wheat from wagons has sold at \$1.35 to \$1.40, and some small lots from railroad at \$1.40.

Corn is not quit so firm here as it has been. Some small lots have sold during the week at 73 cents, but the most of the sales have been made at 75.

Oats are more plenty, and have been selling at a decline. Seeding is mostly over, and the demand is not so good. Good parcels have been sold at 48 cents, and some lighter parcels have been sold for less.

Barley is hardly offered in market, and there are few sales; but prices remain very steady at \$1.50 to \$1.60 per 100 pounds, according to quality.

Corn meal sells at \$1.62 to \$1.70 per 100 lbs. Mill feed is high, and in demand. Bran sells at \$18 to \$20, and middlings are at \$22 to \$25 per ton.

**Live Stock, &c.**  
The cattle market at this place has been better during this week than it has been for some time previous, and there is a firmer feeling amongst cattle men that some higher prices may be obtained. Smith, of the Marine market, yesterday purchased from Mr. Burt of Belleville, twelve head of very prime cattle at 4 1/2 cents. These are the kind that are not sent east from this State.

Also, from Mr. Van Every, of Franklin, eleven hogs, very nice, at the buyer exclaims, at 7 cents. Calves are ranging from \$2 to \$6 per head, the six dollar ones being considered rather the best bargains.

The Albany Evening Journal, referring to the market in that city, quotes the prices as follows, saying at the same time "eastern buyers are taking more freely this week, and as a general average taking the best cattle."

We quote prices this week at 1/4 or 1/2 lb. lower for the same qualities. Say this week:

Premium..... 6 @ 25  
First quality..... 5 @ 25  
Second do..... 4 @ 25  
Third do..... 3 @ 25  
Inferior do..... 2 @ 25

We see also by that paper that B. Spenser, of Ypsilanti, Mich., sold 17 of his own feeding to Thomas Gillis, of New York, at \$60 per head, weight 1,183 lbs.

Robbins & Drummond sold to Cook & Wales, of Brighton, 45 Michigan at \$22 per head; weight 1,478 lbs. Among the "extras" we noticed at Gillis's yards four Devon cattle owned by Mr. Taylor, for which he asked \$100 each, or about 8c per lb live weight.

Freights on cattle are given as being billed from Buffalo to Albany at \$50 per car. Albany to New York, by Hudson River Railroad, \$5 per car, or by Propeller at \$10 per car.

We notice several lots coming from Chicago via Detroit and Suspension Bridge, contracted through, Chicago to New York, \$4 per head, which is cheaper than any ever came before.

**Wool.**  
As noticed in another portion of this paper, the reaction in the wool market east, is having its effect here, and there is a decline in the rates at which wool is purchased. S. Folson, whose card is in another column, on Monday last purchased 9,000 pounds from Well & Brothers of Ann Arbor, and paid the cash down on it. This was bought at 17 cents for the highest quality and finest lots. There was no disposition to touch it any amount higher, it was either take that price or keep the wool. Eastern buyers are at present working more cautiously, and with an eye to future results. All we can say to wool growers now, is not to act as if they were a part of their own flocks, and get scared at every rustle of paper made by eastern panic-makers. From this time look out, and get reliable information as to the market, so that when the time comes to sell, you can act with some discrimination and judgment.

Potatoes come in freely and are sold at fair prices, ranging generally from 40 to 55 cents. The latter price however, is only given for the very best kinds.

Apples—A few Romanitas, and some other sorts, have been sold in the street the past week at \$2 to 2.50 per bushel. The assortment of apples offered is very light and supply not good.

Seeds—We have nothing to note in the sale of seeds, which are very quiet at last week's quotations.

Butter—The scarcity of good butter is remarkable at this season. Very fine, choice table butter is retailing here at 28 to 30 cents. Occasionally some parcels presented as fresh made roll that present a suspicious streaked appearance, denoting how carefully a few pounds of the fresh had been worked in with some that was not quite so recently made. This variety is quoted altogether by the smell, and the stronger that is the lower the price. The range is from 18 up to 25 cents.

Eggs are retailing at 10 to 11 cents, but are bought by wholesale, put up in barrels, at 9 1/2 cents.

**Lumber.**  
The lumber market is promising to be active, and we note that prices are somewhat advanced. The quotations are by the cargo:

Common..... \$9 50 to 10  
New York 1st and 2d clear..... 22 00  
Box (Fourths)..... 12 00 to 13

At retail the prices are as follows:

First clear..... 25 00  
Second do..... 16 00 to 20  
Box..... 15 00 to 16  
Parraloe Boards..... 11 00  
Common boards, flooring, joists and scantling..... 10 00

Common, from 20 to 50 ft long..... 10 00 to 18  
Siding, unressed common..... 8 00  
Dressed siding, common..... 12 00  
Flooring, dressed, common..... 15 00

Callus..... 18 00 to 20  
Lath, per M..... 8 00 to 9  
Shingles, shaved..... 2 00 to 3

## DEVONS FOR SALE.

To avoid breeding in and in, I offer for sale at a low price and a liberal credit for approved paper my Devon Bull MAYOR, a valuable stock getter; also a Devon Cow, BEAUTY, now in calf by Mayor. Both these animals are descended from the best importations Beauty is the Devon cow bred by me which received the first prize at the Fair of the Michigan State Agricultural Society in 1887 as the best two year old Devon heifer, and in 1888, and as the best 3 year old Devon cow. The pedigrees of these animals are given in 34 and 35 of Michigan Stock Register W. M. R. SCHUYLER, Marshall, April, 1889.

## THE CELEBRATED MORGAN HORSE BUSSORAH!

R. J. BIDWELL, would announce to the people of Tecumseh and vicinity, that he has yielded to the earnest solicitations of the breeders of fast trotting horses of Lenawee county and State of Michigan, to offer the services of his fast trotting stallion one season more at his old quarters in the village of Tecumseh.

Terms of sale a liberal credit on application.  
This season will be the last opportunity given in this county for the services of this noble horse. He will be taken south for a full season, and probably remain there. His colts can be seen here from a sucker to a four year old.

Breeders of good horses are invited to call and examine his progeny.

### PEDIGREE:

BUSSORAH was sired by General Gifford; g. sire Gifford; g. g. sire, Woodbury; g. g. g. sire, Justin Morgan of Vermont, he was by True Britton, he by Morton's Traveller Imported, he by the celebrated O'Kelly or English Eclipse, he by King Herod, by Blank, by Old Cale. King Herod, by Tarter, his dam by Cyron by Blaze a son of the great Flying Childers. Blank was by Gololphin Arabian. Justin Morgan's dam was by Diamond he by the Church Horse, he by imported Wildair. She was a fast trotter. The dam of Bussorah was the justly celebrated Lady Howland, by the imported Arabi an horse, Bussorah; grand dam, by the old imported Messenger. Lady Howland was a fast trotter. He is a beautiful bright bay, nine years old, 15 1/2 hands high, weight 1,190 lbs., possessing all the fire and docility of the Arabian horse, and the hardness of the thoroughbred English horse. He is distinguished for his beautiful Arabian head, large expressive eyes, extended nostrils his fine and finely set on neck, his oblique and lengthened shoulders, ample and muscular quarters, his clean flat legs, capacious chest round barrel shaped body, broad loins, short back, deep and full flank, fine coat and prominent blood veins, giving unmistakable evidence of the pure and high bred animal. B. J. BIDWELL, Proprietor.

We, the undersigned, do hereby certify that we are acquainted with the above named horse and his pedigree; he is truly represented, and we have examined his colts and find them very fine, possessing the characteristics of the Morgan horse in a high degree and sell for high prices. We most cheerfully recommend him to all breeders of fine horses for all purposes.

C. W. Ingersoll, D. L. Case, D. H. Emans, of Lodi, Seneca county, N. Y.; Eber Adams, G. L. Bidwell, W. S. Wilcox, Adrian city; S. Davidson, A. J. Hunter, C. De Mott, Tecumseh.

## THE GREAT ENGLISH REMEDY SIR JAMES CLARKE'S CELEBRATED FEMALE PILLS!

Prepared from a Prescription of Sir John Clarke, M. D., Physician Extraordinary to the Queen.

THIS invaluable medicine is unfailing in the cure of all those painful and dangerous disorders incident to the female constitution. It moderates all excess, and removes all obstructions and a speedy cure may be relied on.

**TO MARRIED LADIES**  
It is peculiarly suited. It will in a short time bring on the monthly period with regularity.

Each bottle, price One Dollar, bears the Government Stamp of Great Britain, to prevent counterfeits.

**CAUTION.**  
These Pills should not be taken by females that are pregnant, during the first three months, as they are sure to bring on miscarriage; but at every other time and in every other case, they are perfectly safe.

In all cases of Nervous and Spinal Affections, Pains in the back and limbs, Headaches, Fatigue on Slight Exertion, Palpitation of the Heart, Lowness of Spirits, Hysterics, Sick Headaches, Whites, and all the painful disorders occasioned by a disordered system, these Pills will effect a cure when all other means have failed, and although a powerful remedy, do not contain iron, calomel, antimony, or anything hurtful to the constitution.

Full directions accompany each package.  
Sole Agents for the United States and Canada, JOH. MOSES, (Late L. C. Baldwin & Co.) Rochester, N. Y.

N. B.—\$1.00 and 6 postage stamps enclosed to any authorized Agent, will ensure a bottle of the Pills by return mail.

For sale in Detroit by J. S. CUTHBERT & CO., J. S. FAREND, T. J. HINCHMAN, and in one Drug Store in every town in the United States. 16-6m

**HUNGARIAN GRASS SEED!**  
100 BUSHELS FOR SALE.

This justly celebrated Grass Seed has been raised for 10 years in Iowa and Wisconsin, and to some extent in Illinois and Michigan, the past season. All who have raised it, invariably bear testimony to its unprecedented yield. In some cases as high as seven, and rarely under four tons to the acre of a most healthy and nutritious grass. It yields from 25 to 40 bushels of seed to the acre, which makes good feed for horses and cattle. They not only eat it with great relish, but it keeps them in a more healthy and better condition than any feed yet tried.

**PRICE—\$3 per bushel.**

We submit the following Testimonials:

OTUMWA, IOWA, Jan. 22, 1889.  
To whom it may concern:—This is to certify that crops of Hungarian Grass were entered for premiums at our Agricultural Fair last fall, varying from five to over seven tons to the acre of hay, and thirty-seven bushels to the acre of seed, and affidavits were made to the same. This section of country was visited by severe drouth the fore part of last season, so that the crop of Timothy was scarcely worth harvesting, yet the Hungarian was good, averaging not less than four tons to the acre throughout the country. Its qualities for feeding are spoken of in high terms by all who have used it.

L. B. MORSE, Secretary of Wapello Co. Agricultural Society.

SALINE, MICH., Jan. 1889.  
Mr. J. J. Lyon, Sir:—In reply to your question asking "how I like the Hungarian Grass," I will say that it is the best thing I have ever raised for feeding stock, and I shall not raise any other hay hereafter. It cannot be too highly recommended.

SAMUEL ROBINSON.

Mr. Irwin Peck, of Ypsilanti, says that "Farmers had better plough up their Timothy meadows and sow the Hungarian Grass, as ten acres of it is worth more for stock purposes than twenty acres of any other hay."—Farmers who have raised it, unite in giving the same testimony relative to its merits, as do Messrs. Robinson and Peck.

This unrivalled Grass has been raised in several counties in the State of Michigan, the past season, by some of the most extensive Farmers, who recommend it as surpassing all other crops for stock purposes. Some have raised as high as four tons of excellent hay and thirty bushels of seed to the acre, although the season was very unfavorable for it. Try it, Farmers, one year, and you will never regret it. Sow at any time between April 1st, and July, at the rate of one bushel to three acres.

The few farmers named below, are among the many who have raised it, and can testify as to its qualities:—L. J. Peck, Ypsilanti; S. Howell, Saline; Matthew Howell, Saline; Samuel Robinson, Saline; P. & Zeno, Comstock; Raisin; L. Vanakin, Ypsilanti; J. B. Lapham, Manchester; D. D. Tooker, Napoleon; S. A. Cady Wayne; A. Galley, Wayne; L. Terrill, Plymouth; A. Cooke, Plymouth.

**BLOSS & CO.,**  
No. 22 Monroe Avenue, Detroit.

**JUST RECEIVED FROM GERMANY.**  
Pure seed of the WINNINGSTADT CABBAGE and the SILVER SKINNED ONION, the finest variety for pickles known, at J. BLOSS & CO'S Seedstore, D. O. & W. S. PENFIELD, No. 103 Woodward Ave., Detroit.

**STRAWBERRIES.** Nearly all the standard varieties have been supplied at 50 cents a 100 or \$4 per 1000—they will be sold at these exceedingly low rates as the land where they are raised for building purposes this spring. JAMES DOUGALL, Windsor Nurseries, C. W., April 1st, 1889.

**EXTRA SIZED FRUIT TREES.** Dwarf and Standard, a few very fine large bearing trees Cherry, Pear, Apple, Plum, &c., that have been transplanted and can be removed with safety.

**Ornamental Trees and Shrubs.** A few very fine rare varieties of very extra size similar to above. The ground where these trees are raised is cleared for building purposes this spring, they will, therefore, be sold low. JAMES DOUGALL, Windsor Nurseries, C. W., April 1st, 1889.

## AYER'S CATHARTIC PILLS,

FOR ALL THE PURPOSES OF A FAMILY PHYSIC, Are so composed that disease within the range of their action can rarely withstand or evade them. Their penetrating properties search, and cleanse, and invigorate every portion of the human organism, correcting its diseased action, and restoring its healthy vitalities. As a consequence of these properties, the invalid who is bowed down with pain or physical debility is astonished to find his health or energy restored by a remedy at once so simple and inviting.

Not only do they cure the every-day complaints of every body, but also many formidable and dangerous diseases. The agent below named is pleased to furnish gratis my American Almanac, containing certificates of their cures, and directions for their use in the following complaints: Costiveness, Heartburn, Headache arising from disordered Stomach, Nausea, Indigestion, Flatulence, and Morbid Action of the Bowels, Constancy, Loss of Appetite, Jaundice, and other kindred complaints, arising from a low state of the body or obstruction of its functions.

Do not be put off by unprincipled Dealers with some other pill they make no profit on. Ask for AYER'S PILLS, and take nothing else.

## AYER'S CHERRY PECTORAL.

FOR THE RAPID CURE OF COUGHS, COLDS, HOARSENESS, INFLUENZA, BRONCHITIS, WHOOPING COUGH, ASTHMA, AND INCURABLE CONSUMPTION.

So wide is the field of its usefulness and so numerous are the cases of its cures, that almost every section of country abounds in persons publicly known, who have been restored from alarming and even desperate diseases of the lungs by its use. When once tried, its superiority over every other medicine of its kind is too apparent to escape observation, and where its virtues are known, the public no longer hesitate what antidote to employ for the distressing and dangerous affections of the pulmonary organs that are incident to our climate. While many inferior remedies exist upon the market, which have failed and been discarded, this has gained friends by every trial, conferred cures upon the afflicted they can never forget, and produced cures too numerous and too remarkable to be forgotten.

Prepared by Dr. J. C. AYER, PRACTICAL AND ANALYTICAL CHEMIST, Lowell, Mass.

Sold by J. S. Farrand, Detroit, and by all Druggists everywhere. [2]4w



## FOR SALE AT THE AMERICAN SEED STORE

22 Monroe Avenue, Detroit, Mich.

## PEABODY'S PROLIFIC CORN!

A NEW VARIETY. It grows from three to ten ears on a stalk. Six ears planted by John W. Shaw, last year, produced one hundred bushels of sound corn. This corn was originated by a careful scientific cultivator on Long Island. It comes up stout and is more forward than common corn. Plant two kernels in a hill, four feet apart each way.

PRICE—Fifty cents per quart, or Fifteen cents per ear.

## HUNGARIAN GRASS SEED!

100 BUSHELS FOR SALE.

This justly celebrated Grass Seed has been raised for 10 years in Iowa and Wisconsin, and to some extent in Illinois and Michigan, the past season. All who have raised it, invariably bear testimony to its unprecedented yield. In some cases as high as seven, and rarely under four tons to the acre of a most healthy and nutritious grass. It yields from 25 to 40 bushels of seed to the acre, which makes good feed for horses and cattle. They not only eat it with great relish, but it keeps them in a more healthy and better condition than any feed yet tried.

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## THE TROTTER STALLION HAMBLETONIAN,

Will stand for mares the ensuing Season commencing April 4th, as follows:

At JOHN CLARK'S, Milford, Mondays and Tuesday;  
At JOHN HATHAN'S, New Hudson, Wednesdays;  
At SAM'L LATHROP'S, Northville, Tuesdays;  
At JAMES ROOTS, Plymouth, Fridays and Saturdays;

Leaving each place at 5 o'clock P. M.

From the general complaint of poor crops last year I have concluded to reduce the price of my horse for this season.

Season money to be paid when the Mare is first served, or a good note given for the amount. Persons, parting with mares before foaling time will be held responsible for the season money. All mares not regularly returned will be held by the season. Pasture furnished at fifty cents per week. All accidents and escapes at the owner's risk. Season to close on the first of August, 1889. Grain will be received for insurance money, delivered at my farm on the first day of February 1890, at Detroit prices.

HAMBLETONIAN was awarded the First Premium at the Oakland County Fair, October, 1887. At the State Fair in Detroit last fall his colts took more premiums than any other Stallion in the State.

### Pedigree of Hambletonian.

HAMBLETONIAN was sired by Geo. Barney's horse Henry, of Whitehall, Washington county, New York—he by Imported Signal, out of a Messenger mare. Hambletonian's dam by Mambrino, grandam Bishop's Hambletonian who was sired by Imported Messenger. Hambletonian is 15 1/2 hand high, weighs 1150 pounds; possessing fine action, with great powers of endurance; untrained, but shows good evidence of speed. Hambletonian is a beautiful bloodbay, black mane, tail and limbs, without a white hair upon him, and for style can not be excelled by any horse in the State. F. E. ELDERED, Detroit.

HIRAM E. CADY, Agent.

## THE YOUNG TROTTER STALLION, KEMBLE JACKSON,

Will stand for mares the coming season, at Spring Brook Farm, adjoining the Village of Farmington, Oakland county Mich., commencing April 4th. Owing to the extreme hard times among farmers—loss of crops the past season, &c., I have concluded to reduce the price of my horse.

KEMBLE JACKSON will stand at \$20 the season. Money to be paid when mare is first served or a good note given for the amount. Good pasture furnished at fifty cents per week. All accidents and escapes at the owners risk. Season to close on the 30th day of July 1889.

### Pedigree of Kemble Jackson:

KEMBLE JACKSON—Mahogany bay, 16 hands high. Star in his forehead; hind feet white half way up to gambrel joints. Foaled June 14, 1884. The property of Isaac Akin, Fanning, Dutchess Co., N. Y. Sire, Kemble Jackson; dam, Lady Moore.

Kemble Jackson was by Andrew Jackson; his dam, Fanny Kemble, sister to Charles Kemble, and sired by Sir Archy; her dam was Maria, sired by Gallatin; Maria's dam was got by Simms Wildair, she out of a mare got by Morton's Traveller; her dam was an imported mare, name unknown, but thoroughbred.

Andrew Jackson was by Young Bashaw; dam by Why-not, by Imp. Messenger; Young Bashaw was by the Imp. Tripoli Arabian, Grand Bashaw; Young Bashaw's dam was a daughter of Messenger, said to be thoroughbred.

Lady Moore was out of Messenger Maid, by Membrino Paymaster; he by Old Membrino, by Imp. Messenger. GEO. F. GREGORY, Agent.

## THE YOUNG TROTTER STALLION ISLAND JACKSON,

Will stand for mares the coming season at Spring Brook Farm, adjoining the Village of Farmington, Oakland county Mich., commencing April 4th, at the reduced price of \$10 the season. Season money to be paid when mare is first served or a good note given for the amount. Good pasture furnished at fifty cents per week, all accidents and escapes at the owners risk. Season to close July 30th, 1889.

### Pedigree of Island Jackson:

Island Bay 15 1/2 hands high foaled July 5, 1885. Sire Jackson, by Andrew Jackson; dam, Belfounder. Andrew Jackson was by Young Bashaw; dam, Why-not by Imp. Messenger. Young Bashaw, by the Imp. Tripoli Arabian, Grand Bashaw; dam, Messenger. GEO. F. GREGORY, Agent.

## THE TROTTER STALLION GLEN BLACK HAWK,

Will stand for mares the ensuing Season as follows: At Redford, Hicks' Tavern, Monday's and Tuesdays; at Detroit, Gratiot Road 1 1/2 miles from City Hall, Wednesdays and Thursdays; on Grosse Isle, Bachelus Farm, Fridays and Saturdays.

Season money to be paid when mare is first served or a good note given for the amount. Season to close July 30th, 1889. TERMS—\$10 the season; \$15 to insure.

Season money to be paid when mare is first served or a good note given for the amount.

### Pedigree of Glen Black Hawk.

Sire, Lone Star, by Old Vermont Black Hawk; dam Messenger. F. E. ELDERED, Detroit.

## J. L. HURD & CO. DETROIT MICH.

Produce and Shipping Merchants.

Agents and Consignees for the following Lines:

AMERICAN TRANSPORTATION COMPANY.

CAPITAL \$900,000.

WESTERN TRANSPORTATION COMPANY.

CAPITAL \$900,000.

AND THE NEW YORK CENTRAL R. R. CO.

We would respectfully announce to the Millers, Merchants and Manufacturers of Michigan, that the recent reduction of Canal Tolls on the Erie Canal, will enable us to carry eastward, from Detroit,

FLOUR, WHEAT, CORN, OATS, WOOL, ASHES, HIDES.

And all other products of Michigan, at prices much below those of former years. Our lines are THE MODEL LINES OF THE COUNTRY.

J. L. HURD & Co., Foot of Second-st. [11]4yr

## R. G. CORWIN,

HAVING sold his farm by private contract, it will not be sold at auction as heretofore advertised, but

On Wednesday, the 4th of May, There will be offered at Public Sale, his entire Herd of

SHORT HORNED CATTLE, Consisting of forty head of

Bulls, Cows, and Heifers.

This herd is one of great celebrity, and contains within it some of the best animals in America. The cattle are in rather low condition on account of the scarcity of food and the unfavorable weather; but it is believed that no herd contains so many